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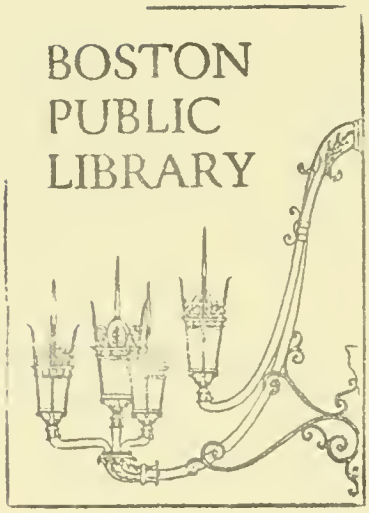
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# CHARLESTOWN NAVY YARD

## REDEVELOPMENT

*Final*

## SUPPLEMENTAL

## ENVIRONMENTAL IMPACT REPORT

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**VOL. 1 OF 2**

BOSTON REDEVELOPMENT AUTHORITY

BOSTON
REDEVELOPMENT
AUTHORITY

Raymond L. Flynn
Mayor

Stephen Coyle
Director

One City Hall Square
Boston, MA 02201
(617) 722-4300

September 3, 1991

Susan F. Tierney, Secretary
Executive Office of Environmental Affairs
100 Cambridge Street
20th Floor
Boston MA 02202

RE: Charlestown Navy Yard Redevelopment, EOEA # 2383

Dear Secretary Tierney:

We are pleased to provide you with the Final Supplemental Environmental Impact Report (FSEIR) for the Charlestown Navy Yard Redevelopment. This document responds to comments contained in your certificate, dated August 2, 1991, approving the Draft Supplemental Environmental Impact Report (DSEIR) as well as to those contained in comment letters received from other agencies and interested groups and citizens.

The document we are presenting to you today contains considerable new information, including full wind and shadow studies for Yard's End and substantially expanded materials in the areas of traffic, water and sewer impacts, vessel-related use, and the "double-interpretive loop" plan for special destination facilities. In addition, each comment received has been numbered and a full response prepared. In our judgement, this document, together with the DSEIR, addresses the issues raised through the entire MEPA process. The broad scope of this response reflects our belief in the importance of the Charlestown Navy Yard Redevelopment to the economies of the City and the Commonwealth.

The plan for the Navy Yard Redevelopment was first put forward in 1977 and received MEPA approval in 1978. The proposed new elements of the master plan that are the subject of the present MEPA review were first presented publicly in 1987. In four years of community process the elements of the plan have been placed before the public in the context of local planning, zoning, harbor planning, and historic preservation. The plan has been approved by the Charlestown Neighborhood Council, the Boston Zoning Commission, the Boston Redevelopment Authority Board, and the Massachusetts Historical Commission. In addition, the redevelopment plan was a principal focus of the Boston Municipal Harbor Plan, which you reviewed and approved last May after a public hearing and review process. The level of public support for the plan is reflected in these approvals and in the many favorable comments received on the DSEIR during the public comment period.

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Further review remains. Even with the conclusion of the MEPA process, major regulatory reviews must still take place in the form of waterways licensing under Chapter 91 at the state level and development review under Article 31 of the Boston Zoning Code.

The timely completion of the redevelopment of the Charlestown Navy Yard is now critical. At the economic core of the plan is the expansion of biomedical research a crucial part of the new economy that we are seeking to build in the City. We are presently experiencing a serious recession in Boston, Massachusetts, and New England. Economic recovery will not happen until we can start expanding new growth industries to put people back to work. The expansion of economic investment in the Charlestown Navy Yard will offer thousands of Boston area residents employment either in construction or in high quality permanent jobs through implementation of the redevelopment plan.

Accordingly, we urge your thorough review of the enclosed document. We note that a number of issues pertinent to waterways licensing under Chapter 91 are addressed in the SEIR in part as a follow-up to your decision of May 22, 1991 approving the Boston Municipal Harbor Plan. We hope that we have fully and adequately responded to all Chapter 91 issues raised. However, to the extent that any waterways issues are perceived as remaining outstanding, we would urge your consideration of resolving them in the context of the Chapter 91 licensing proceedings still to occur.

In the same vein, all proposed buildings must still undergo comprehensive design and development review under Article 31 of the Boston Zoning Code. To the extent that any issues appear to remain that are essentially of a design nature, these can most effectively be addressed in design review.

Thank you for your careful consideration of these comments and of the FSEIR.

Sincerely,

Stephen Coyle
Director

gov91-2291

# CHARLESTOWN NAVY YARD REDEVELOPMENT

# FINAL SUPPLEMENTAL ENVIRONMENTAL IMPACT REPORT

**E.O.E. A. #02383**

**September 3, 1991**

**Proponent:**

**Boston Redevelopment Authority**
**One City Hall Square**
**Boston, MA 02201**

**Environmental Consultants:**

**Transportation Consultant**
TAMS Consultants, Inc.

**Infrastructure Consultant**
HMM Associates, Inc.

**Air Quality Consultant**
Tech Environmental, Inc.

**Wind Consultant**
Frank H. Durgin, P.E.

**Shadow Consultant**
Sasaki Associates, Inc.

**Waterways Consultant**
TAMS Consultants, Inc.

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## CHAPTER I. INTRODUCTION

Project Name: Charlestown Navy Yard Redevelopment

EOEA File Number: 02383

Secretarial Decision: The Secretary's Certificate on the Draft Supplemental Environmental Impact Report is reproduced in this document as Letter 1.

### ORGANIZATION OF THE FSEIR

This Final Supplementary Environmental Impact Report ("FSEIR") for the Charlestown Navy Yard Redevelopment is presented here as a document which addresses the comments of the Secretary of Environmental Affairs of the Commonwealth of Massachusetts on the previously submitted Draft Supplementary Environmental Impact Report ("DSEIR"), as well as comments from other public agencies and interested parties. The FSEIR should be reviewed together with the DSEIR documents previously submitted.

In order to respond to the comments on the DSEIR, additional analyses were conducted, and responses were reviewed with the respective commenting agencies. The FSEIR presents these responses and is organized into three chapters as follows:

**Chapter I.** This chapter summarizes the issues of the commenting agencies and interested parties and the responses of the Project Proponent. The issues and responses are organized into six categories - Transportation, Water and Sewer, Historic Resources, Wind and Shadow, Air Quality, and Waterways. There were several other impact areas studied in the DSEIR that were not the subject of substantial public comment or concern. These other impact areas include local air quality, community benefits, open space and recreational facilities, and construction activities.

**Chapter II.** This chapter addresses each comment on the DSEIR on a point-by-point basis as follows:

- **A copy of the original letter.** Principal comments are highlighted with sequential numbers in the left-hand column.

- **A summary of the principal comments found in each letter.** This is provided as a convenient reference to, rather than a substitute for, the original comment.

- **A response to each summarized comment.** Each response is numerically keyed to corresponding letters and comments. In reading the response, it may be helpful to reference the accompanying original letter in order to understand the full range of issues being addressed.

**Chapter III.** This chapter is the Appendix and includes the following documents: revised Design Guidelines for the Navy Yard; a stabilization report for the Ropewalk, Tar House, and

the Chain Forge; further discussion of the Double Interpretive Loop; Mesoscale, Wind and Shadow analyses; further infrastructure studies, and a list of all persons/organizations who submitted letters to the Secretary in support of the Navy Yard redevelopment.

## PROJECT SUMMARY

The Charlestown Navy Yard is a 135-acre waterfront site adjacent to the Charlestown community. The site was used as an active naval facility from 1800 until its decommissioning by the federal government in 1974. In 1978, the property was acquired by the Boston Redevelopment Authority ("BRA") and a comprehensive redevelopment program was begun involving the adaptive reuse of existing historic structures in one of the largest historic preservation efforts ever undertaken in the country. This redevelopment effort also included the development of new buildings, the construction of major public open space areas, the repair of piers and other waterfront structures, and substantial street improvements.

A Final Environmental Impact Report for a proposed redevelopment plan for the Charlestown Navy Yard was reviewed by the Executive Office of Environmental Affairs ("EOEA") and approved in 1978. (As approved, the FEIR is referred to herein as the "1977 FEIR".) Since that time, EOEA has approved several modifications and clarifications to the original approval. (A summary of prior actions under the Massachusetts Environmental Policy Act ("MEPA") was included as Appendix 1 of the DSEIR). As amended to date, the 1978 approval allows a total of 4,593,900 square feet of rehabilitation and new development, including office, retail, research, residential, cultural, and recreational facilities. Of that total, 2,328,800 square feet of redevelopment has already occurred, including the adaptive reuse of Building 149 into a 650,000 square-foot office and medical research facility operated by Massachusetts General Hospital and the creation of 934 units of new housing. Twenty-two acres of new green space also have been created, including Shipyard Park, one of Boston's most dramatic open spaces. The BRA has expended more than $13 million on public infrastructure, repair, and rehabilitation in the Navy Yard since 1978. Total private investment to date exceeds $470 million.

Beginning in 1987, a planning and community review effort was undertaken to update certain aspects of the original redevelopment plan for the Charlestown Navy Yard. Based on this process and with the broad support of the Charlestown Neighborhood Council and the Harborpark Advisory Committee, the Boston Redevelopment Authority approved an updated Master Plan and new zoning for the Navy Yard in the fall of 1990. The updated Master Plan is illustrated in Figure 1.

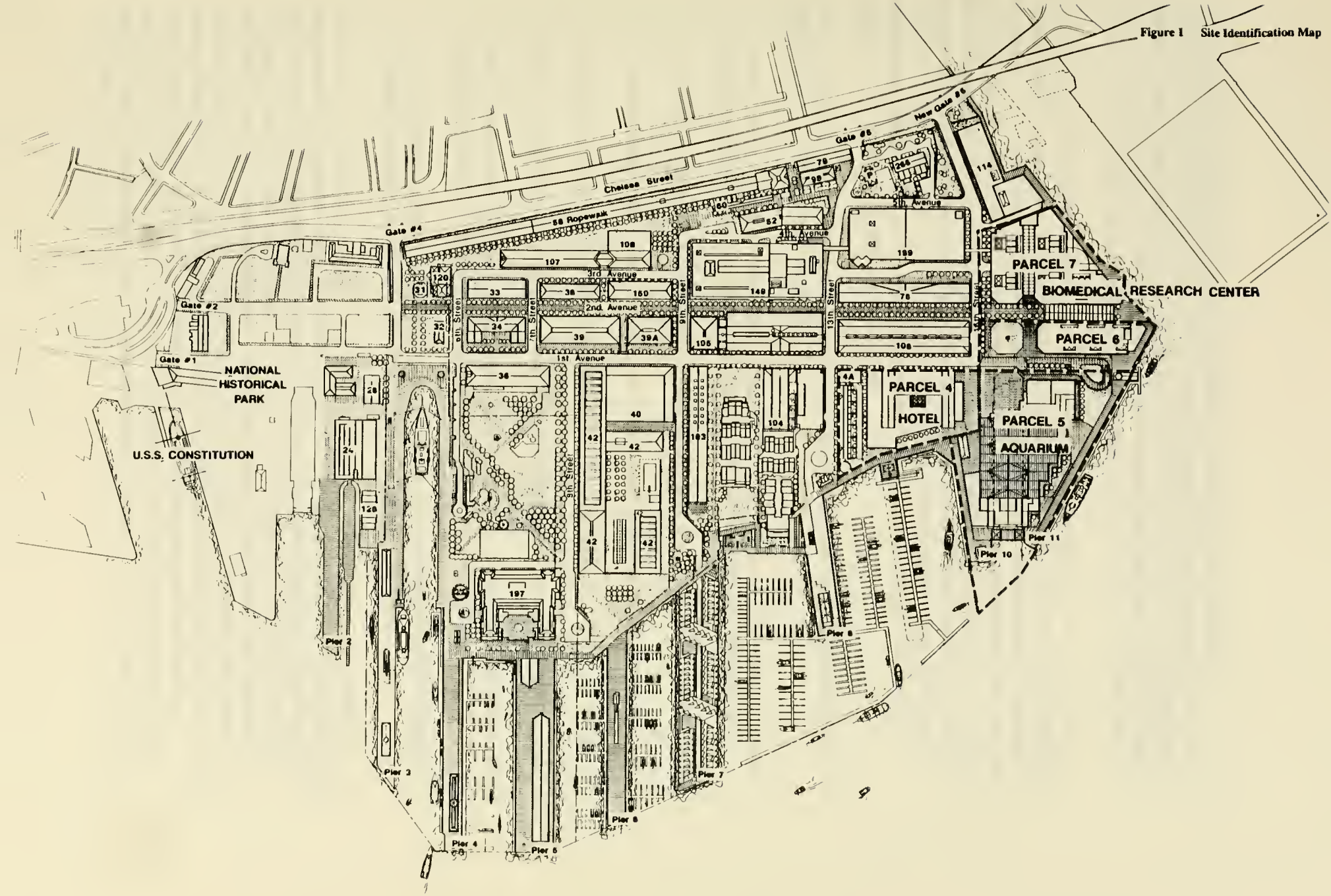
As detailed in the DSEIR submitted to EOEA in June, 1991, a total build-out of 4,956,900 square feet is now proposed in the Charlestown Navy Yard, including both rehabilitated and new space. This represents an increase of 363,000 square feet, or approximately eight (8) percent, over the total approved in EOEA's 1978 Certificate, as amended to date, as indicated in the Secretary's Certificate on the DSEIR dated August 2, 1991.

Highlights of the proposed plan changes are two new developments proposed for the Yard's End portion of the Navy Yard:

- A proposed Biomedical Research Center of up to 1.1 million square feet consisting of three buildings, one of which was determined by EOEA on January 2, 1991 to require a Section 61 Finding but no further MEPA review; and

- A new aquarium facility to be operated by the New England Aquarium.

Figure 1 Site Identification Map



These proposed developments are being substituted for the previously approved redevelopment plan for Yard's End. This previously approved Yard's End plan called for a 700-room hotel (now reduced to 400 rooms as approved in the January 2, 1991 letter), 394 units of housing totalling 500,000 square feet (now dropped from the plan), and a 150 slip marina (included in the proposed revised plan and approved in the January 2, 1991 letter).

Other aspects of the redevelopment plan, as it relates to areas outside of the Yard's End, remain largely unchanged. Two material changes outside of Yard's End are (1) the proposed construction of a new Gate 6 to permit more direct access to the Aquarium and Biomedical Research Center, and associated modifications to Building 114 to accommodate the new gate, and (2) proposed new construction at Parcel 39A. Pier 5 presents a special case. A scoping determination of Pier 5 based on a proposed buildout of 110 residential units was issued by EOEA on August 12, 1987. No change is sought in that determination. This FSEIR is not intended as a MEPA filing in response to that determination, although the proposed Pier 5 buildout is included in all redevelopment totals.

The completion of the Navy Yard redevelopment as now proposed will bring substantial public benefits to Boston and the region:

- Over 4,300 construction and 4,000 permanent jobs, with requirements that employment opportunities be made available for Boston residents, minorities and women.

- Over $7.3 million and $1.4 million in housing and jobs linkage payments, respectively.

- Approximately $15.5 million in new, recurring annual property tax revenues.

- Over $7.5 million in one-time construction state income taxes.

- Nearly $6.5 million in annual permanent state income taxes from newly created jobs.

- Over 10 acres of additional public open space in the Navy Yard and 6,500 lineal feet of publicly accessible waterfront incorporated into the Harborwalk system.

- Strengthened vocational training for community residents through the Boston Health Careers Academy and Bunker Hill Community College.

The overall environmental impacts of the redevelopment as now proposed are generally comparable to or less than those described in the 1977 FEIR. This includes lower peak hour traffic counts and corresponding reductions in projected air quality impacts. Impacts on the sewerage system and other public utility systems are comparable to those described in the 1977 FEIR and well within the capacity of existing systems, which have been substantially upgraded since 1977. Historical impacts have been the subject of a separate regulatory process managed by the Massachusetts Historical Commission, the National Park Service, and the Advisory Council on Historic Preservation, with the participation of the Boston Landmarks Commission. Revised Design Guidelines for the Navy Yard were executed on July 19, 1991. Other projected environmental impacts differing from those described in the 1977 FEIR are not anticipated.

Portions of the DSEIR pertaining to a detailed project description, the existing environment, and alternative analysis are incorporated herein by reference. The following summary of effects and mitigation measures outlines materials presented in response to specific comments and should be read in conjunction with those comments and with applicable portions of the DSEIR.

## SUMMARY OF ENVIRONMENTAL ISSUES

Specific comments on the DSEIR made by the Secretary, public agencies, and other interested parties can be generally organized into six categories - Transportation, Water and Sewer, Historic Resources, Wind and Shadow, Air Quality, and Waterways. The major concerns that were raised in each of these categories are summarized below.

### Transportation

In addition to the comments on transportation issues contained in the Certificate of the Secretary of EOEA on the DSEIR, transportation comments were submitted principally by EOTC, Boston Transportation Department (BTD), Massachusetts Port Authority (Massport), Astrid C. Glynn (for the Boston Shipping Association, Inc.), Stephen H. Kaiser, and the Ad Hoc Coalition.

The transportation comments covered a wide range of issues but, in general, were focused on the following: the use of calibrated versus ITE rates for trip generation and parking demand; a more detailed presentation of volume-to-capacity (v/c) data for the various signalized intersections in the study area; pedestrian safety at the BRA-owned overflow parking lot, the Little Mystic Bridge, the new Gate 6 entrance, and the Yard's End waterfront; pedestrian capacity within the Navy Yard and access to the waterfront; clarification of information presented in the DSEIR regarding City Square; vehicular safety at the Chelsea Street/Terminal Street intersection; public parking facilities in the Navy Yard; public transit services and capacity; water transportation facilities (especially in relation to a pier management plan); and construction traffic management.

The Medford Street Bypass ("Haul Road") was not addressed in detail in the DSEIR since the various transportation impact analyses performed during 1988-91 have shown that, even though there is strong community and other public support for such a major improvement to the roadway network, it is not a necessary component of the Navy Yard transportation program per se. The development of the Bypass can be justified (1) as a public safety measure for residents living on and near Medford Street, for the schoolchildren using the school facilities, and for all users of the other public facilities located on Medford Street, and (2) as a part of economic development improvements to the Commonwealth of Massachusetts Designated Port Area (DPA) and the Maritime Economy Reserve (MER) zone in Charlestown's working waterfront.

Regarding Navy Yard impacts on City Square, the ongoing changes by the State agencies and the Bridge Design Review Committee[1] to the design of the City Square intersection are still in flux, and a final design has not been issued. As described in the DSEIR and the FSEIR, the Navy Yard redevelopment will generate only minor impacts on City Square, and the mitigation proposed in the DSEIR for the intersection design which was officially current at the time of the writing of the DSEIR is projected to yield better traffic flow than the geometry which had been reviewed and approved by MEPA.

---

[1] This committee was convened to review the design of the "Scheme Z" interchange at the North Washington Street Bridge.

The following responses to comments address transportation issues: Letter 1, comments #21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, and 40; Letter 8, comments #1, 2, and 3; Letter 9, comments #1, 2, 3, 4, and 5; Letter 10, comments #1, 2, and 3; Letter 11, comments #1 and 2; Letter 12, comments #1, 2, 3, 4, and 5; Letter 13, comments 2 and 3; Letter 17, comments #2, 3, 4, 5, and 6; Transportation Appendix, comments #1, 2, 3, 4, 5, and 6; and Letter 18, comment #2.

**Water and Sewer**

The MEPA Certificate on the DSEIR identified two major issues with respect to water and sewer impacts: (1) the need to conduct assessments of the local impacts of the proposed increases on both the water and sewer systems within the Charlestown Navy Yard, and (2) the need to pay special attention to the concerns of the Boston Water and Sewer Commission (BWSC) and the Massachusetts Water Resources Authority (MWRA) regarding the reduction of water, stormwater, and sewer flows. In addition, several comments were made by the BWSC and the MWRA regarding compliance with those agencies' regulations and permit requirements and requesting clarification of certain water and sewer flow calculations.

In response to the Secretary's request, an assessment of the impacts on the local water and sewer systems within the Navy Yard from the proposed new development was undertaken by HMM Associates, Inc., and is included in this FSEIR. This assessment concluded that the existing infrastructure is adequate to serve the total proposed buildout and that no significant impacts are anticipated. Wastewater generated from the future developments will require 81% of the available capacity of the Northern Route of the Yard's sanitary sewer system and between 28% to 45% of the available capacity of the Southern Route. Assessment of the Yard's water distribution system indicated that the present system likewise is adequate to serve the anticipated level of development and that there would be sufficient flow with a static pressure of at least 64 psi. Storm drainage from the Yard has been separated from the sanitary sewers and discharges into the Little Mystic Channel and the Boston Inner Harbor. Storm flows following completion of proposed redevelopment are expected to be less than existing flows due to an increase in the area of pervious ground surface associated with the Yard's End redevelopment.

With respect to water conservation, the BRA recognized the desirability and benefits of implementing water saving measures beyond the requirements of the Massachusetts State Plumbing Code. By reducing the demand for water, wastewater discharges also are reduced. Additional conservation measures will be considered for the various future developments within the Navy Yard. In addition, the BRA will require proponents of the individual project developments to investigate the implementation of other water conservation measures as part of the Authority's project review requirements. In considering its landscaping requirements, the BRA has endeavored to avoid plantings that require excessive amounts of water and will encourage future landscaping appropriate to the regions's climatic conditions that require minimal use of potable water.

The following responses to comments address water and sewer issues: Letter 1, comments #4, 5, and 6; Letter 14, comments #1, 2, and 3; and Letter 15, comments #1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, and 15. Appendix D of this document also presents a study of redevelopment impacts on the infrastructure system within the Navy Yard.

**Historic Resources**

Comments regarding historic resources focused primarily in two general areas. The first involved the potential impact of new construction on historic structures. Further discussion and elaboration on the factors considered during the planning process to mitigate and minimize such impacts was requested. A number of specific observations also were provided.

The second general area involved updating the status of the BRA's discussions with historic preservation officials. A number of comment letters requested that the revised Design Guidelines signed by MHC and the Advisory Council be included in the FSEIR. Various observations regarding the status and timing of the BRA's commitments with respect to historic structures were also provided.

The proposed Double Interpretive Loop appears to have struck a responsive chord amongst a wide range of interests. Many comment letters included positive reference to this concept and requested that it be further developed.

This FSEIR responds by providing elaboration and further discussion of the impact evaluation process in response to specific questions and comments contained in individual letters. In addition, further documentation that illustrates the benefit of the current massing of the Biomedical Research Center versus earlier proposals is included. An analysis of the maximum visible facade area of these new structures from any single pedestrian vantage point demonstrates that existing historic structures such as Buildings #149 and #199 have greater visible facade area. It is therefore unlikely that the proposed new construction will appear to overwhelm these existing structures.

The massing on Parcels 6 and 7 has also been designed in such a way that the tallest (155-foot) building elements will be shielded from view from much of the Historic Monument Area through interposition of a lesser height of 140 feet along Sixteenth Street and 110 feet at Parcel 6. Thus, for all practical purposes with respect to visual impact on historic resources, the height of new construction at Yard's End will appear to be 140 feet (Building A) and 110 feet (Building C). These heights are comparable to the existing heights of Buildings #149 and #199.

This FSEIR also includes the revised Design Guidelines which have been approved by the MHC and the Advisory Council. The Stabilization Reports for the Ropewalk, Tar House, and the Chain Forge (Building 105), which have received U.S. Department of Interior approval, are also provided to update the status of progress on these three key historic structures. Lastly, the Double Interpretive Loop has been further developed and is included in this FSEIR.

On the whole, both the DSEIR and FSEIR clearly demonstrate that a substantial degree of planning has been geared towards minimizing and mitigating the impact of new construction on historic resources. Furthermore, the BRA has worked, and continues to work, cooperatively with historic preservation officials on programs such as Building Stabilization and the Double Interpretive Loop to insure that the potential of the Charlestown Navy Yard's unique historic resources is fully realized.

The following responses to comments address historic resource issues: Letter 1, comments #1, 2, 3, 14, 15, and 16; Letter 2, comment #1; Letter 3, comments #1, 2, and 3; Letter 4, comments #1 and 2; Letter 7, comment #1; Letter 16, comment 1; Letter 17 - Historical Resources Appendix, comments #1, 2, 3, 4, 5, and 6; and Letter 18, comments #3, 4, 5, and 7. Appendices A, B and C of this document also address historic resource issues.

**Wind and Shadow**

Comments regarding wind and shadow issues focused primarily on the need for an assessment of the potential wind and shadow impacts of the proposed Master Plan development and on a specification of the mitigation measures proposed to minimize adverse effects. In response, analyses of the potential wind and shadow effects resulting from the construction of the proposed Biomedical Research Center, the New England Aquarium, and the proposed Hotel on Parcel 4 were performed by Frank H. Durgin, P.E., and Sasaki Associates, Inc. These studies indicate that the full buildout of the Yard's End portion of the Navy Yard will have minimal adverse impact on pedestrian-level wind and shadow conditions.

In general, conditions at the main entrances to the project buildings, along the pedestrian pathways, and within the Yard's End Park are expected to be acceptable for all winds. Accelerated winds are expected along the north part of the Harborwalk in the vicinity of Building 114, but the remainder of the Harborwalk, although windy at times because of its natural exposure, should not experience a worsening of adverse conditions overall.

Similarly, shadow impacts from the proposed development will not be significant. The Yard's End Park will remain very sunny for most of the year, but will be partially shaded in the winter. Relative to Yard's End Park, more extensive shadows will fall on the Aquarium entrance plaza. The northern portion of the Harborwalk will be shaded by the Biomedical Research Center most days of the year, and the Aquarium will cast some shadow in the late afternoon on portions of the eastern edge of the Harborwalk. However, it is significant to note that the western side of Pier 10 and that part of the Harborwalk north of the Pier 8/9 marina (i.e., at Parcel 4) will be in sunlight throughout most of the day.

The BRA has taken, and will take, all feasible mitigation measures to avoid or minimize the minimal wind and shadow effects associated with the proposed project development. Temporary wind impacts, pending the completion of full development at Yard's End, will be mitigated by the interim installation of wind breaks such as trees, shrubbery plantings, or architectural wind screens. Over the past year and a half, significant design modifications have been made in the design and massing of the Biomedical Research Center and the Hotel in order to minimize the potential for adverse pedestrian-level wind and shadow impacts. Building heights have been reduced, and the two taller wings of the Hotel have been set back from the ground level by 30-foot high podiums, mitigating the impact of deflected winds on the pedestrian environment. Similarly, the current L-shaped design of Building B of the Biomedical Research Center along the Harborwalk serves to break up the deflected winds. On the other hand, shadows cast on the northerly portion of the Harborwalk cannot feasibly be mitigated, since even a one-story building in this location would cause similar results.

The following response to comments address wind and shadow issues: Letter 1, comment #13; Letter 5, comment #10; and Letter 6, comment 2. Appendices F and G present studies of wind and shadow issues in the Navy Yard.

**Air Quality**

The MEPA Certificate requested that the FSEIR include a mesoscale analysis of the proposed Navy Yard development. A mesoscale analysis estimates the daily release of hydrocarbons (a precursor to ozone) from motor vehicles in a certain study area in order to quantify the effects of a project or action on area-wide hydrocarbon emissions. In accordance with the "Guidelines for Performing Mesoscale Analysis of Indirect Sources" prepared by the Massachusetts Department of Environmental Protection, a mesoscale analysis of the proposed Navy Yard Master Plan development was prepared by Tech Environmental, Inc. In summary, this analysis indicates that the effect of the traffic from the additional development at the Charlestown Navy Yard with implementation of the Proposed Plan is clearly insignificant, approximately 9 to 10 kg/day in both 1998 and 2005. In terms of the regional emissions which determine ozone concentrations, this amount represents less than an 0.0008% increase in the total hydrocarbon emissions from all activities in Massachusetts. Furthermore, much of the increase will be offset by the removal of Aquarium visitor trips from the downtown waterfront area where the Aquarium is now located.

The following responses to comments address air quality issues: Letter 1, comment #7. A Mesoscale Air Quality Analysis is presented in Appendix E of this document.

**Waterways**

Comments on waterways issues were received primarily from the Division of Wetlands and Waterways (DWW) of the Department of Environmental Protection, The Massachusetts Office of Coastal Zone Management (CZM), The Boston Harbor Association (TBHA), and the Ad Hoc Coalition.

The Charlestown Navy Yard, as an adaptive reuse project in the nation's oldest naval shipyard and with a waterfront and pier frontage comparable in length to that of downtown Boston, offers some of the most exciting opportunities available in the City for public access, recreation, and education in an urban waterfront setting. The Navy Yard also offers an exceptional setting for a high level of vessel activity ranging from recreational vessels to water transportation to visiting naval and oceanographic vessels.

Many of the comments received reflected an appreciation for the opportunities presented by the Navy Yard and were directed towards eliciting more detailed information regarding the uses, programs, and activities planned for the waterfront area of the Navy Yard. Detailed responses are included in this FSEIR regarding historical information, such as natural high and low waterlines, pertinent to M.G.L. Chapter 91 licensing; the proposed vessel-related use plan; pier management planning to be undertaken in concert with the redevelopers of waterfront parcels; and further descriptions of the "double interpretive loop" plan to encourage pedestrian visitation and use of the many public resources of the Navy Yard. In addition, full wind and shadow studies for Yard's End are set forth in the appendices, in response in part to

comments received in the context of waterways issues and as a follow-up to the Secretary's decision of May 22, 1991 approving the Boston Municipal Harbor Plan.

The following responses to comments address waterways issues: Letter 1, comments #8, 9, 12, 17, 18, and 19; Letter 5, comments #2, 3, 4, 5, 6, 7, 8, and 9; Letter 6, comments #1, 2, and 3; Letter 13, comments 1, 4, and 5; and Letter 17 - Chapter 91 Appendix, comments #1, 2, 3, and 4.

**Other Issues**

The DSEIR also updated information on the potential impacts related to local air quality, community benefits, open space and recreational facilities, and construction activities. Very few, if any, comments were received on these issues. Therefore, no substantial additional study was undertaken, and the BRA requests a finding that, as to these issues, the DSEIR and FSEIR adequately and properly complies with MEPA.

LETTER 1

The Commonwealth of Massachusetts
Executive Office of Environmental Affairs
100 Cambridge Street Boston 02202

August 2, 1991

CERTIFICATE OF THE SECRETARY OF ENVIRONMENTAL AFFAIRS
ON THE
DRAFT SUPPLEMENTAL ENVIRONMENTAL IMPACT REPORT

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| PROJECT NAME | : Charlestown Navy Yard Redevelopment |
| PROJECT LOCATION | : Chelsea Street - Boston (Charlestown) |
| EOEA NUMBER | : 2383 |
| PROJECT PROPONENT | : Boston Redevelopment Authority |
| DATE NOTICED IN MONITOR | : June 26, 1991 |

The Secretary of Environmental Affairs herein issues a statement that the Draft Supplemental Environmental Impact Report (DSEIR) submitted on the above project adequately and properly complies with the Massachusetts Environmental Policy Act (G. L. c. 30, s. 61-62H) and with its implementing regulations (301 CMR 11.00).

This DSEIR presents the first comprehensive discussion in the MEPA process of the many changes to the Boston Redevelopment Authority's (BRA) Master Plan for the Charlestown Navy Yard (CNY) since the FEIR was approved in 1978. Since that time, the Master Plan has been updated, the zoning has been changed, and, as one would expect, the development plans have evolved. Of the approximately 4.6 million square feet (sf) of new and rehabilitated space described in the 1978 FEIR, 2,328,800 sf of redevelopment has occurred to date. In November 1990, the BRA submitted a Notice of Project Change (NPC) that outlined the updated development plan and proposed a total of 4,956,900 sf, an increase of 363,000 sf over what had previously been approved. This DSEIR was submitted in response to the January 2, 1991 decision on the NPC. Given what has already been built, new and rehabilitated construction of 2,628,100 sf is anticipated.

New construction and rehabilitation at the CNY will consist of the development of 308 dwelling units (283,100 sf), 1,344,000 sf of biomedical research space, 53,000 sf of office space, 18,000 sf of retail space, 400,000 sf of hotel/conference center

space, 481,000 sf of cultural/recreational space, 49,000 sf of other facilities of public accommodation, the development of a 195-slip marina, parking for 2,325 vehicles, eleven acres of open space, and 6,500 linear feet (lf) of Harborwalk.

The proposed redevelopment of the CNY has been divided into two phases by the proponent, Phase I of this project will be completed in 1995. It will include the development of:

198 affordable dwelling units (105,100 sf),
689,000 sf of biomedical research space,
29,000 sf of office space,
11,000 sf of retail space,
400,000 sf of hotel/conference space,
367,000 sf of cultural/recreational space ( includes a 275,000 sf aquarium),
29,000 sf of other facilities of public accommodation,
195-slip marina,
1,825 parking spaces,
seven acres of open space, and
4,000 linear feet (lf) of Harborwalk.

Phase I contains a total of 1,630,100 sf of space. Phase II, which is scheduled for completion in 2000, will include:

110 units of market rate housing (178,000 sf),
655,000 sf of biomedical research space,
24,000 sf of office space,
7,000 sf of retail space,
114,000 sf of cultural/recreational space,
20,000 sf of other facilities of public accommodation,
500 parking spaces,
four acres of open space, and
2,500 lf of Harborwalk.

Phase II contains a total of 998,000 sf of space.

The DSEIR has provided useful information on a number of issues. As with any project of this scale, however, numerous questions remain for resolution in the Final SEIR (FSEIR). The many comments submitted on the DSEIR indicate significant support for the benefits anticipated from this development, in terms of construction-related and long-term employment, housing, and development of the historic and cultural resources of the area. The comments have also raised many legitimate points about the impacts that can be expected to result from these activities.

Given the questions and concerns that remain, I cannot agree to the BRA's request that this report serve to conclude environmental review pursuant to MEPA of the CNY redevelopment program. A FSEIR is required to address the questions raised in this Certificate and the comments. Moreover, the requirement contained in the January 2, 1991, letter that individual Environmental Notification Forms (ENFs) be filed for the New England Aquarium (NEA), and Buildings 2 and 3 of the Biomedical Research Center is still in effect. These ENFs will allow site specific review of these significant projects, which can build upon the information contained in this report and in the FSEIR.

What follows are my comments and questions about the information presented in the DSEIR. I have in some instances highlighted issues raised in the comments. My failure to mention a comment specifically, however, should not be taken as an indication of disagreement. In accordance with the MEPA regulations, the FSEIR will be expected to respond to all comments within the subject matter jurisdiction of the review.

Historic Issues

1 The CNY is listed in the National Register of Historic Places as a National Historic Landmark. The proponent thus has a special obligation to proceed with redevelopment in a way that not only preserves the area's historic resources but affirmatively develops and enhances its historic, cultural, and educational potential. The BRA has been working closely with federal, state, and local agencies to ensure that these goals will be achieved. The FSEIR should update the status of these discussions and provide any further details about specific development plans or guidelines.

For example, both the Boston Landmarks Commission (BLC) and the Massachusetts Historical Commission (MHC) have requested that the FSEIR include the revised "Design Guidelines for New Parcels," dated July 19, 1991. The National Park Service (NPS) has also indicated that the proponent needs to reach agreement with it on stabilization plans and rehabilitation guidelines for the Ropewalk, the Tar House, and the Chain Forge Building in order to amend the Program of Preservation and Utilization for the Historic Monument Transfer Area.

The discussion in the DSEIR on the impacts of the redevelopment on historic structures should be expanded. It is clear that the BRA intends to develop sensitively the historic resources of the CNY in a way that will encourage public

2 enjoyment of them. The rehabilitation of the Chain Forge Building and the Ropewalk and the creation of the "Double Interpretive Loop," a sort of Freedom Trail within the Navy Yard, are examples of this commitment. Where the discussion needs further expansion, however, is with respect to the impacts that the new development, in particular the Biomedical Research Center, will have on the historic resources of the Yard. A discussion of the revised "Design Guidelines" should be helpful in the FSEIR. I direct the proponent to detail the overall potential historic issues and impacts in significantly more detail in the FSEIR.

For example, the FSEIR should contain a detailed discussion regarding building heights and massing adjacent to historic structures, particularly with the three buildings proposed for the Biomedical Research Center. Building 1 was approved in January 2, 1991, letter at a height of 125 feet, which was what the MHC had at that time approved. Building 1 is now proposed for 140 feet, to which the MHC is agreeable. Unlike Building 1, Buildings 2 and 3 will be subject to further MEPA review. The DSEIR proposes Building 2 at 155 feet and Building 3 at 110 feet. I am concerned both by the height proposed and by the tendency of the proposed developments to grow over time. Height is relevant not only to historic impacts, but to wind and shadow impacts as well. The FSEIR must carefully discuss these issues.

3 Lastly, Figure 1 in Section 2 of the DSEIR shows what appears to be an atrium constructed between the proposed biomedical research buildings on Parcels 6 and 7. According to the MHC, this may be in conflict with the visual easements contained in the 1978 Master Plan for the CNY. The 1978 plan indicated that a view corridor along Second Avenue to the water is to be maintained. The proponent is directed to address this issue in the FSEIR.

Water and Sewer

4 The Boston Water and Sewer Commission (BWSC) has recommended
5 that the proponent conduct assessments of the local impacts of
6 the proposed increases on both the water and sewer systems within the CNY. According to the BWSC and the Massachusetts Water Resources Authority (MWRA), the residential water and sewer flows presented in Tables 66 and 68 appear to be low. The proponent should revise these numbers as indicated or explain the basis of the calculations. I direct the proponent to address each concern raised by the BWSC and the MWRA. The proponent should pay special attention to their comments regarding the reduction of water, stormwater, and sewer flows. Plans to address these flow issues

should be detailed in the FSEIR.

Air Quality

7 Because this project will generate over 10,000 trips per day, the proponent should review the "Guidelines for Performing Mesoscale Analysis of Indirect Sources" (Air Quality) and contact the Department of Environmental Protection (DEP) to provide guidance on the preparation of acceptable analyses of certain indirect source projects in relation to their potential impacts on regional hydrocarbon emissions. This mesoscale analysis should be included in the FSEIR.

Waterways

8 The FSEIR must be more specific about the jurisdiction and the applicability of the Chapter 91 and 310 CMR 9.00 to each of the components of the redevelopment plan. Additional information should be provided in the FSEIR's plans, such as historic mean and low water marks, the location of the first public way landward of shoreline, the location of flood zones, existing State Harbor Lines, and the limits of Commonwealth and private tidelands. The proponent must pay particular attention to address the comments pertaining to Chapter 91 issues raised by the DEP, the Massachusetts Coastal Zone Management (MCZM) office, The Boston Harbor Association, and those of other commentors. Some of the Chapter 91 issues raised include the following:

9 o The FSEIR should include a pier management plan that addresses overall use, development, maintenance, insurance, and the operation of the CNY piers and Harborwalk.

10 o The Ad Hoc Coalition questions how 50 percent of total development as open space is derived. The FSEIR should include specific details and identify the location and the square footage of each parcel of open space.

11 o Concerns regarding the safety of pedestrians using the walkway along the Little Mystic Channel when the New England Aquarium (NEA) is closed should be addressed.

12 o The FSEIR should elaborate on its vessel-related use program, which was confusing in places, lacked specific data and analysis of key planning factors, and did not sufficiently relate building setbacks to the development requirements of the proposed water transportation facilities.

13 o The FSEIR must specify its program to mitigate adverse wind and shadow effects in the Yard's End. What specific standards, guidelines, and documentation procedures will be used in determining the waterfront environment? Will these standards be conducive to pedestrian activity at the ground level? As part of my approval of the Boston Harborpark Plan on May 22, 1991, I requested the proponent to incorporate in the SEIR a "special mitigation program" to ensure that wind, shadow, and other conditions of the ground level environment will be conducive to public use and enjoyment in the environs of the new Aquarium." I desired the development of a two-part protocol for making decisions about building size and configuration. While the DSEIR contains descriptions of the methodologies to be used to analyze wind and shadow impacts, the FSEIR should present the rest of the protocol, that is the standards, guidelines, and other parameters that will serve as a framework for mitigation decisions and the procedure documenting the application of such a framework to individual projects.

14 o According to MCZM, appropriate adjustments need to be made to the dimensional requirements and limitations on residential use of the first two floors of the Pier 5 housing. This may suggest that a reduced scale development should be planned here. Pier 5 housing is also located in a velocity zone subject to severe coastal flooding as shown on the Flood Insurance Rate Map for this area. If this housing is to be built, a plan to coordinate evacuation prior to a storm should be prepared. As the BRA acknowledges, the Pier 5 development is subject to a separate EIR requirement. The issues identified here should be addressed in the EIR for that project.

15 o The proposed addition to Building 114, which increases its height to 125 feet, and its use as parking appear to be inconsistent with the waterways standards governing height and ground floor usage of waterfront buildings. An alternative use that is more compatible with the waterways standards needs to be presented and analyzed in the FSEIR.

16 o The Double Interpretive Loop needs further development in the FSEIR. Pier 5 may be an appropriate location to consider my directive of May 22, 1991 regarding the need for year-round special facilities on a pier in the CNY.

17 o The FSEIR should identify which individual projects require a Chapter 91 license. It should examine and identify if proposed individual projects meet DEP's non-waivable Chapter 91 standards.

18 o The marina on Pier 8 may extend seaward of the State Harbor Line and an analysis needs to be done to determine if this is true and its effect on navigability.

19 o The DEP notes in its comments that restaurants are not water dependent uses unless they are an integral function of the operation of a marina or other water dependent use. Therefore, any restaurant use must be justified when requesting tidelands licensing.

Traffic and Public Transit

a. Vehicular Traffic

20 The proponent is reminded to review the EOEA/EOTC
21 "Guidelines for EIR/EIS Traffic Impact Assessment." The FSEIR
22 will need a zoning map of the project site and a more detailed description of zoning. The level of service analysis in the FSEIR should consistently include volume/capacity figures. An analysis of trip generation using unadjusted ITE rates for the appropriate land use codes is required in the FSEIR. If there are no applicable ITE rates or sample size is small, generation rates based on other research should be used. An analysis using other than ITE rates may be presented when fully explained and the sources cited, but the ITE trip generation rates must be provided in the FSEIR or in its Appendices.

23 The FSEIR should address comments received regarding safety
24 issues associated with mixing tourist traffic and heavy trucks
25 along the Medford Street/Terminal Street corridor. Are intersection improvements needed at Medford Street/Chelsea Street
26 and Terminal Street/Chelsea Street? The creation of Gate 6 with pedestrian crossings needs more detailed attention for safety and traffic flow. The Boston Shipping Association indicated its concern with the vertical geometry of the bridge over the Little Mystic Channel and notes that trucks queue at the Moran Terminal gate. What specific improvements will be required on the bridge over the Little Mystic Channel? Is the Medford Street Bypass a truck/bus route or a general traffic route for the CNY? Will the rail tracks within this area be fully abandoned? Do these railroad tracks require Executive Office of Transportation and Construction (EOTC) approval? If the project proponent commits to the construction of the Medford Street Bypass, an analysis of potential impacts to water-dependent industrial uses will be required in the FSEIR. However, there no longer seems to be a commitment on the part of the proponent for the Medford Street Bypass. Table 57 in the DSEIR listed transportation mitigation

27 measures. However, the data was incomplete. What sort of street pattern could be developed to discourage through traffic in dense areas of Charlestown, similar to Beacon Hill? More details on traffic mitigation plans are required in the FSEIR.

28 The proponent's proposed mitigation roadway geometry changes in City Square should be compared with the earlier work done for the City of Boston. A commentor has suggested making the I-93 off-ramp in City Square into an underpass through City Square, with local traffic provided with a U-turn move near the CNY. While I realize that this suggestion is incompatible with the currently approved Central Artery North Area (CANA) project, it does illustrate the concerns caused by the addition of traffic from the Navy Yard in the City Square intersection. I remain concerned about creating additional traffic lanes on Chelsea Street in City Square as proposed by the proponent in its mitigation package. With 17 lanes of traffic at this intersection and the poor level of service, I would like to see additional attempts made at developing other alternatives, or additonal mitigation.

29 According to a commentor, the Central Artery engineers were assigning 90 percent of the City Square traffic as coming from the South or the Downtown Artery direction. The FSEIR should determine whether the percentage of traffic in City Square from the South is 44 or 90 percent. This discrepancy should be addressed.

b. Boat Traffic

30 The proponent has prepared a vessel-related programming plan
31 in which the Little Mystic Channel is to be used for large vessel layover and docking and not for a small boat marina. The FSEIR also needs to review the location of a water shuttle dock at Pier 11 because it might act as an impediment to the use of that berth for a larger vessel. The specific location for a water shuttle on Pier 10 (the preferred location) or Pier 11 should be discussed in the FSEIR. The proponent should specify in the FSEIR what programming, operational, and structural criteria/controls will be established to assure that Pier 11 is available for visiting vessels before ownership is transferred to the NEA. Does the proponent propose to modify Pier 4 to handle the increasing demand for the water shuttle? Are any additional waiting spaces or other amenities planned to handle this demand? There appeared to be no commitment on the part of the proponent to help implement the expanded water shuttle service. The EOTC has requested that a permanent water shuttle terminal be developed on

Pier 10/11 for Yard's End.

c. Pedestrian Traffic

32 The Boston Transportation Department (BTD) will require the
33 proponent to model the distribution of pedestrian trips on the major corridors within and at the periphery of the CNY. Any potential deficiencies and obstacles to pedestrians should also be identified. Therefore, I request that this pedestrian information be included in the FSEIR. Capacity calculations at City Square show no pedestrian signal phases for crossing the northbound and the southbound roadways. How will pedestrians get from Charlestown to the waterfront?

d. Parking

34 I request the proponent to provide more details regarding
35 estimated parking generation rates for the CNY redevelopment. Why
36 were ITE parking generation rates not used? The proponent may develop other parking generation rates, but the ITE parking generation rates should be included for comparison. I remain very concerned that insufficient parking is being proposed for this project. In addition, I request that more information be provided regarding the location of available parking within the CNY, and how the parking system will operate. The FSEIR should analyze the parking demand impacts of maintaining the launching ramp on the Little Mystic Channel for small boat usage on the overflow parking area.

e. Public Transit

37 The DSEIR did not discuss transit service to and from the
38 rapid transit lines from stations that would service the CNY,
39 Sullivan Square, Community College (Orange Line), and North Station (commuter rail, Orange Line, and Green Line). The FSEIR should discuss the proposed circumferential transit line which has been proposed by the MBTA. This proposed line would operate from the Longwood Medical Area in Boston through Central Square in Cambridge to Community College in Charlestown. What public transit services will the proponent commit to in the FSEIR? The existing shuttle services in the CNY need to be discussed in detail in the FSEIR. Are these shuttle services open to the public? How much do they cost the rider? The FSEIR should show the shuttle routes and the public transit routes on a map of sufficient size so that the routes can be identified.

The MBTA should be an ex-officio member of the proposed

Transportation Management Agency (TMA).

40 The DSEIR created a public transit scenario of 15,000 transit trips a day in 2005, yet it does not describe how these trips arrive at rapid transit stations. The FSEIR should commit to some expansion of public transit bus routes to and from the CNY and the rapid transit stations or some other alternative, such as a light rail line from the Navy Yard.

f. Construction Coordination

41 The proponent will be required to coordinate construction schedules, truck routing, and staging areas with the Central Artery project. Construction Management Plans must be submitted for Central Artery project team and the BTD review prior to being finalized.

Miscellaneous

Because zoning will allow a conditional substitution of office use for research use, I remind the proponent that a change from research use to office use, as well as any other revisions to the project, will require that a Notice of Project Change be filed with the MEPA Unit.

Finally, I strongly urge the proponent to prepare the FSEIR with single-spaced text using both sides of the page where graphics allow. While double-spaced text may be easier to read, it is harder on the budget, and harder to carry around.

August 2, 1991
DATE

Susan F. Tierney, Secretary

Comments received :

Mary M. Rizzi, 7/10/91
Floorcoverers Local 2168, 7/11/91
J.W. French Associates, 7/11/91
Michael A. Owens, 7/11/91
T. Catalyst, Inc., 7/12/91
Keen Development Corp., 7/15/91
Charlestown Neighborhood Council, 7/15/91
The Raymond Group, 7/15/91
Bricklayers and Laborers, 7/16/91

Building and Construction Trades Council of the Metropolitan District, 7/16/91
MWRA, 7/16/91
Judith Clough, 7/17/91
Greater Boston Chamber of Commerce, 7/18/91
Edward John Cooley, 7/18/91
Conroy Development Corp., 7/18/91
Mary Whirly, 7/19/91
Donna Hammini, 7/20/91
Glaziers, Architectural Metal and Glassworkers Local Union #1044, 7/22/91
Bricklayers and Allied Craftsmen Local #3, 7/22/91
Boston District Council of Carpenters, 7/22/91
Mass. Pile Drivers Local #56, 7/22/91
Mary Fisher &/22/91
Boilermakers and Iron Ship Builders, 7/22/91
Linda C. Neshamkin, 7/22/91
Millwright and Machinery Erectors, 7/22/91
Painters and Allied Trades, 7/22/91
International Assoc. of Bridge, Structural, and Ornamental Iron Workers, 7/23/91
Navy Yard Plaza, 7/23/91
The Boston Harbor Assoc., 7/23/91
Electrical Workers, Local 103, 7/23/91
Brenda Scully, 7/23/91
Michele Leonard-Burns, 7/23/91
Mass Historical Commission, 7/24/91
Shipways Condominium Assoc., 7/24/91
MHC, 7/24/91
Steve Kaiser, 7/24/91
John L. Allen, 7/24/91
Maureen Burke, 7/24/91
Willy Weir, 7/25/91
Margaret Horgan, 7/25/91
The Ad Hoc Coalition, 7/25/91
Boston Transportation Dept., 7/25/91
Astrid C. Glynn (Boston Shipping Assoc.), 7/25/91
Plumbers Local 12, 7/25/81
Boston Water and Sewer Comm., 7/26/91

11

MWRA, 7/26/91
Massport, 7/26/91
Boston Landmarks Comm., 7/26/91
U.S. Dept. of the Interior, National Park Service, 7/26/91
Boston Environment Department, 7/26/91
Downtown North Assoc., 7/26/91
Kimberly M. Stearns, 7/26/91
David Laittre, 7/26/91
Deborah MacDonald, 7/26/91
Sharlene Stearns, 7/29/91
Patrick Keigney, 7/29/91
Katherine MacDonald, 7/29/91
Mary Stearn, 7/29/91
Carl Allen, 7/29/91
Shawn McDonald, 7/29/91
Charles A. Saitta, 7/29/91
Carol Anne Owens, 7/29/91
Francis Nardone, 7/29/91
Sheila McLaughlin, 7/29/91
Michelle Andrea, 7/29/91
Thomas Allen, 7/29/91
Connie Saitta, 7/29/91
Michael Shea, 7/29/91
Joanne Janihan, 7/29/91
Connie Tracy, 7/29/91
Laurie Barends, 7/29/91
Nina Dalli, 7/29/91
Jeannette Grisdale, 7/29/91
Sheila Kavanagh, 7/29/91
Judith Kelly, 7/29/91
Donald Sullivan, 7/29/91
Joann Jones, 7/29/91
Edward Javaiski, 7/30/90
Ann Soitta, 7/30/90
Andrew Goldberg 7/30/91
Kim Davis, 7/30/91
Edward Gaileresla, 7/30/91
Bernard Auch, 7/30/91
Kim Reid, 7/30/91
Pamela Macomber, 7/30/91
Mary Chiappa, 7/30/91
Theresa Ring, 7/30/91
Barbara Phillips, 7/30/91
Daniel King, 7/30/91
James Donovan, 7/30/91
Linda Donovan, 7/30/91

Donald Vessender, 7/30/91
Elvira Nelson, 7/30/91
Agnes Conley, 7/30/91
Karen Jane, 7/30/91
Mary Chiappa, 7/30/91
John Geaty, 7/30/91
Mary Moloney, 7/30/91
Paul Mahoney, 7/30/91
Nancy King, 7/30/91
Denise MacDougall, 7/30/91
Michael Conley, 7/30/91
Susan Ferry, 7/30/91
Linda Evans, 7/30/91
Cheryl Scadding, 7/30/91
Kathleen Byrne, 7/30/91
Paula Jackson, 7/30/91
Mary Cerolia, 7/30/91
EOTC, 7/29/91
MCZM, 7/30/91
DEP, 7/31/91
Mary Howell, 8/1/91
Christine M. Chioppa, 8/1/91
Elizabeth Sweeney, 8/1/91
Form Letters Supporting the Project (373)

SFT/WTG/wg

## CHAPTER II: RESPONSES TO COMMENT LETTERS ON THE DSEIR

### LETTER 1 - EXECUTIVE OFFICE OF ENVIRONMENTAL AFFAIRS: CERTIFICATE OF THE SECRETARY OF ENVIRONMENTAL AFFAIRS ON THE DSEIR

**Comment #1**

***Topic:*** *Historic Resources*

**Comment:** The FSEIR should update the status of discussions with federal, state and local historic preservation agencies and provide any further details about specific development plans or guidelines.

**Response:** Since submission of the DSEIR, revised Design Guidelines for the New Development Area, dated July 19, 1991, have been executed by the Massachusetts Historical Commission, the President's Advisory Council on Historic Preservation, and the Boston Redevelopment Authority. The revised Design Guidelines are included as Appendix A of this FSEIR. The adoption of the revised Design Guidelines concludes an 18-month consultative process with the interested agencies.

In addition, stabilization reports for the Ropewalk, Tar House, and Chain Forge Building have been completed and submitted to the National Park Service for approval. These reports, which were approved on June 19, 1991, are included as Appendix B of this FSEIR. Subsequently, the BRA has completed contract documents to accomplish the work described in the stabilization reports. The contract documents have also been submitted for National Park Service approval, and upon such approval the BRA will advertise the stabilization contract.

The proposed Double Interpretive Loop concept has also been developed to a level of much greater detail and is included as Appendix C of this FSEIR. The Double Interpretive Loop will tie the Navy Yard's historical, cultural, and recreational resources into an overall coherent system that enhances public access, education, and appreciation of the entire Navy Yard as a historic resource.

**Comment #2**

***Topic:*** *Impacts of New Development on Historic Structures*

**Comment:** The discussion of the impacts that the new development, in particular, the Biomedical Research Center, will have on the historic resources of the Yard needs further expansion. For example, the FSEIR should contain a detailed

discussion regarding building heights and massing adjacent to historic structures.

**Response:** The impact of new construction on the historic resources of the Charlestown Navy Yard has received extensive study over the course of the one and one-half year long review process with historic preservation officials. This review, which commenced in the spring of 1990, was undertaken to secure agreement on the amendment of various documents which effectuated the initial transfer of the Navy Yard in 1978 in order to accomplish the redevelopment envisioned by the Charlestown Navy Yard Master Plan.

The transfer documents included Design Guidelines for the New Development Area which had been developed pursuant to Section 106 of the National Historic Preservation Act of 1966, which requires that the impact of any federal action on historic resources be minimized or mitigated. It was necessary to amend the Design Guidelines to permit construction of the Biomedical Research Center. Accordingly, a number of building height and massing options were studied in order to minimize the impact of new construction on historic structures.

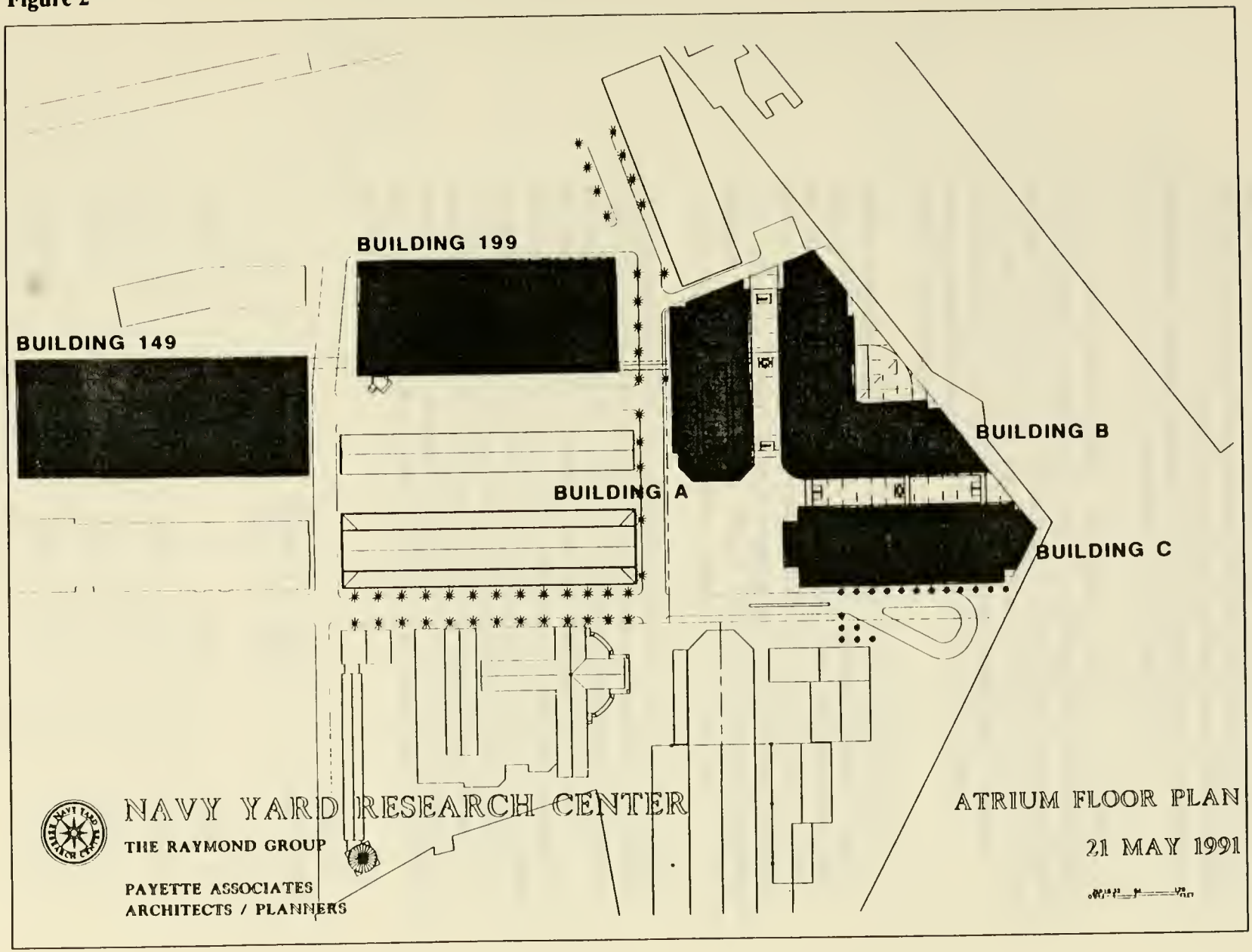
The present plan, which is consistent with the new Design Guidelines, is comprised of three buildings (Building A, B and C) illustrated in Figure 2. It was developed in response to concerns that the initial proposal, which envisioned three parallel structures arranged along 16th Street, would create an overwhelming repetitive presence adjoining the Historic Monument Area. Overall building heights initially proposed at 155 feet, 155 feet, and 125 feet have been scaled back to heights of 140 feet, 155 feet, and 110 feet, respectively.

The revised massing concept shields the 155-foot tall Building B from view by placing it behind the 140-foot tall Building A along Sixteenth Street. The massing of the new construction steps down to the height of the nearby historic Building #199 which is 110 feet tall.

During the course of review with historic preservation officials, visual impact analysis was performed by positioning sticks representing lines of sight on a 1 inch = 40 feet scale model of the Charlestown Navy Yard. This analysis confirmed that, from most vantage points within the Historic Monument Area, the proposed massing would serve to minimize apparent height to 140 feet on Parcel 7.

The new construction proposed for Parcel 6 is at a height of 110 feet which is unchanged from the height approved for this parcel in 1978. However, the current plan envisions a minimum 60-foot building setback from Sixteenth Street in order to mitigate the impact on the adjoining Building #106.

**Figure 2**


BUILDING 199
BUILDING 149
BUILDING B
BUILDING A
BUILDING C
NAVY YARD RESEARCH CENTER
THE RAYMOND GROUP
PAYETTE ASSOCIATES
ARCHITECTS / PLANNERS
ATRIUM FLOOR PLAN
21 MAY 1991

The shell of Building #114 also adjoins the Biomedical Research Center. This structure was previously ravaged by fire. Little historic fabric remains as a result. Historic preservation officials therefore agreed to allow partial demolition of a wing of Building #114 to accommodate the new Gate #6 and new construction of an addition that is 96 feet in height.

The only other historic structure which directly adjoins the Biomedical Research Center is Building #75 which is a 35-foot tall timber shed built in the mid-19th century. The 140-foot tall Building A will establish a height relationship to Building #75 that is comparable to that between the 118-foot tall Building #149 and Building #75 at its other end. Just as Sixteenth Street separates Building #75 and Building #149, it will separate Building #75 and Building A.

Overall comparability between the relatively simple, straightforward massing of the Biomedical Research Center and that of historic industrial loft structures such as Buildings #149 and #199 was determined to yield more compatible relationships than extensive upper level setbacks which could create a refined scale not in keeping with the Navy Yard industrial character. Historic preservation officials also felt that exposed treatment of rooftop mechanicals was preferable to enclosure with architectural elements.

As previously described, for all practical purposes with respect to visual impact on historic resources, the height of new construction at Yard's End will appear to be 140 feet and 110 feet from the majority of the Historic Monument Area. The following chart summarizes overall facade dimensions of existing industrial loft buildings and proposed structures to gauge comparative visual impact of building mass. The maximum visible facade area from any single pedestrian vantage point (length x width x height for two contiguous facades) is actually less for proposed new construction than for existing buildings. It is therefore quite unlikely that the Biomedical Research Center buildings could visually overwhelm the existing structures.

| | Length (ft.) | Width (ft.) | Height (ft.) | Maximum Visible Facade |
|---|---|---|---|---|
| Bldg. 149 | 450 | 190 | 96/118 | 70,000 s.f. |
| Bldg. 199 | 400 | 170 | 110 | 62,700 s.f. |
| Bldg. A | 280 | 120 | 140 | 56,000 s.f. |
| Bldg. C | 360 | 120 | 110 | 52,800 s.f. |

**Comment #3**

*Topic:* *Second Avenue View Corridor*

**Comment:** The atrium proposed between the biomedical research buildings on Parcels 6 and 7 may be in conflict with the visual easements contained in the 1978 Master Plan for the CNY.

**Response:** As is evident from the approved Design Guidelines included in Appendix A of this FSEIR, no change affecting the Second Avenue view corridor has been adopted. Accordingly, as detailed designs are developed for these buildings they will be reviewed with the Massachusetts Historical Commission to insure that the proposed treatment is not in conflict with the view corridor. The atrium depicted on the Site Identification Map, Figure 1 of this FSEIR, simply illustrates but one potential design solution which could both define the view corridor and provide a sheltered space during inclement weather.

Specific evaluation of whether such a solution can be achieved without conflict with the Second Avenue view corridor requires the kind of detailed study and development which is only possible through design review by the MHC at further stages of the design process.

**Comment #4**

*Topic:* *Water and Sewer Systems*

**Comment:** The Boston Water and Sewer Commission has recommended that the proponent conduct assessments of the local impacts of the proposed increases on both the water and sewer systems within the CNY.

**Response:** In response to the request of the Boston Water and Sewer Commission, HMM Associates, Inc. undertook an evaluation of the impacts from the proposed Charlestown Navy Yard development on both the water and sewer systems within the Navy Yard. This study, which is included as Appendix D of this FSEIR, concludes that the existing infrastructure is adequate to serve the proposed development and that no significant impacts are anticipated. A summary of the assessment report follows.

Sanitary Sewers

Much of the sanitary sewer system within the Navy Yard has been constructed since 1980 and is adequate to satisfy the existing requirements of the site. Flows are carried on-site primarily by 10-inch, 12-inch, and 15-inch sewers via two routes (Northern Route and Southern Route) which connect to the Charlestown Branch Sewer, which passes through the Navy Yard. Total future wastewater generation is estimated at a maximum of 929,900 gpd, and an instantaneous peak of 1,292 gpm. Phase I and Phase

II development, in total, will contribute a maximum increase in wastewater flow of 127 percent above existing conditions. Assessment of the capacities of the sanitary systems within the Navy Yard indicates that the instantaneous peak wastewater generation from the future developments will require 81 percent of the available capacity of the limiting section of the Northern Route and between 28 to 45 percent of the available capacity of the Southern Route.

Water

The Navy Yard is supplied with potable and fire service water by the Boston Water and Sewer Commission's Northern Low Service system via a 24-inch main in Chelsea Street. Connections from the Yard are made by 16-inch mains near the Marine Barracks and at the northeastern end of the Yard near Medford Street. Based on fire hydrant tests and a computerized simulation model of the Yard's distribution system, available flow and pressure within the Yard are found to be extremely good. Total estimated full development water demand is 1,023,100 gpd. Simulation of the Yard's water distribution system indicates that the system likewise is adequate to serve the anticipated level of development in the Yard and that there would be sufficient flow with static pressure of at least 64 psi.

Storm Drainage

Storm drains and sanitary sewers in the Charlestown Navy Yard were separated during redevelopment in the early 1980's. The majority of the storm flows from the Yard are directed to outfalls located at the Little Mystic Channel, while the remainder of the flows discharge into the Boston Inner Harbor. Storm flows after redevelopment are expected to be less than existing flows, due to an increase in the area of permeable ground surface associated with the Yard's End Plan.

**Comment #5**

***Topic:*** *Residential Flow Rates*

**Comment:** The residential water and sewer flows presented in Tables 66 and 68 appear to be low.

**Response:** The estimates for residential sewer and water flows for Phase I given in Tables 66 and 68 in the DSEIR represent 152 one-bedroom YMCA residential units and 46 two-bedroom conventional residential units. The wastewater estimate, shown in Table 66, is based on a Title 5 estimate of 110 gallons per day per bedroom times the total of 244 bedrooms, giving the stated 26,800 gpd. Water demand estimates in Table 68 are based on 110% of the sewage generation rate, or 29,500 gpd.

**Comment #6**

***Topic:*** *Reduction of Flows*

**Comment:** The proponent should detail plans to address the reduction of water, stormwater, and sewer flows.

**Response:** The BRA recognizes the desirability and benefits of implementing water saving measures beyond the requirements of the Massachusetts State Plumbing Code, where appropriate. By reducing the demand for water, wastewater discharges also are reduced. Additional conservation measures, such as the use of spring-loaded or time valve fixtures, air-cooled or closed loop heating and air conditioning systems, water-efficient plantings, etc., will be considered for the various future developments within the Navy Yard. In addition, the BRA will require proponents of the individual project developments to investigate the implementation of other water conservation measures, beyond the Plumbing Code requirements, as part of the Authority's project review requirements.

Moreover, in considering its landscaping requirements, the BRA has endeavored to avoid plantings that require excessive amounts of water and will encourage future landscaping appropriate to the region's climatic conditions that requires minimal use of potable water. Under the Open Space Plan component of the Master Plan, the proposed addition of landscaping and green open space in the Yard's End area, which presently is nearly entirely paved or occupied by deteriorating structures, will increase the area of pervious surface and thus help to reduce the volume of future stormwater flows.

**Comment #7**

***Topic:*** *Mesoscale Analysis*

**Comment:** The proponent should include in the FSEIR a mesoscale analysis of the potential impacts on regional hydrocarbon emissions of certain indirect source projects.

**Response:** A mesoscale analysis estimates the daily release of hydrocarbons from motor vehicles in a certain study area in order to quantify the effects of a project or action on area-wide hydrocarbon emissions. Hydrocarbons, in the presence of sunlight, undergo complex chemical reactions and form the pollutant ozone. Given the regional nature of ozone and the complexity of its formation process, it is not feasible to estimate the impact of an individual indirect source project on ambient concentrations of ozone. Instead, total hydrocarbons, the major precursor element to ozone, serve as a reliable indicator of regional degradation or improvement in ozone concentrations. To be consistent with the emissions inventory contained in the Massachusetts SIP for Ozone and Carbon Monoxide, and the chemical

reactive properties of ozone's component elements, proposed projects are analyzed in terms of non-methane hydrocarbons (NMHC). Non-methane hydrocarbons emissions represent that portion of total hydrocarbons that are volatile or highly reactive and, as such, represent the primary precursor to ozone formation.

In response to the Secretary's Certificate on the DSEIR, a mesoscale analysis of the proposed Navy Yard Master Plan development was prepared by Tech Environmental, Inc., in accordance with the "Guidelines for Performing Mesoscale Analysis of Indirect Sources" prepared by the Massachusetts Department of Environmental Protection. The analysis report is included in this FSEIR as Appendix E.

In summary, the mesoscale analysis indicates that the effect of the traffic from the additional development at the Charlestown Navy Yard with implementation of the Proposed Plan is clearly insignificant, approximately 9 to 10 kg/day in both 1998 and 2005, with mitigation. In terms of the regional emissions which determine ozone concentrations, this amount represents less than an 0.0008% increase in the total hydrocarbon emissions from all activities in Massachusetts. Furthermore, much of the increase will be offset by the removal of Aquarium visitor trips from the downtown waterfront area where the Aquarium is now located.

**Comment #8**

***Topic:*** *Chapter 91 Jurisdiction*

**Comment:** Additional information should be provided concerning historic mean and low water marks, location of the first public way landward of the shoreline, flood zones, State Harbor Lines, and tidelands limits.

**Response:** The attached figures provide the following information in response to this comment:

- o historic high and low water marks (Figures 3 and 4);
- o location of the first public way landward of the shoreline (Figure 3);
- o flood zones (Figure 5);
- o state harbor lines (Figure 6).

In general, as provided in the Chapter 91 regulations, private tidelands lie between the historic high and low water marks and Commonwealth tidelands lie seaward of the historic low water mark. (If the historic low water mark is more than 100 rods (1,650 feet) from the historic high water mark, the Commonwealth tidelands begin at 1,650 feet.) However, these rules are regulatory presumptions only. As with most urban waterfront locations, the status of title for the purposes of determining Chapter 91 jurisdiction in the Charlestown Navy Yard is very complex and is affected by grants, statutes, and court cases dating back nearly two centuries. The

**Figure 3 CHARLESTOWN NAVY YARD HISTORIC HIGH AND LOW WATER LINES**

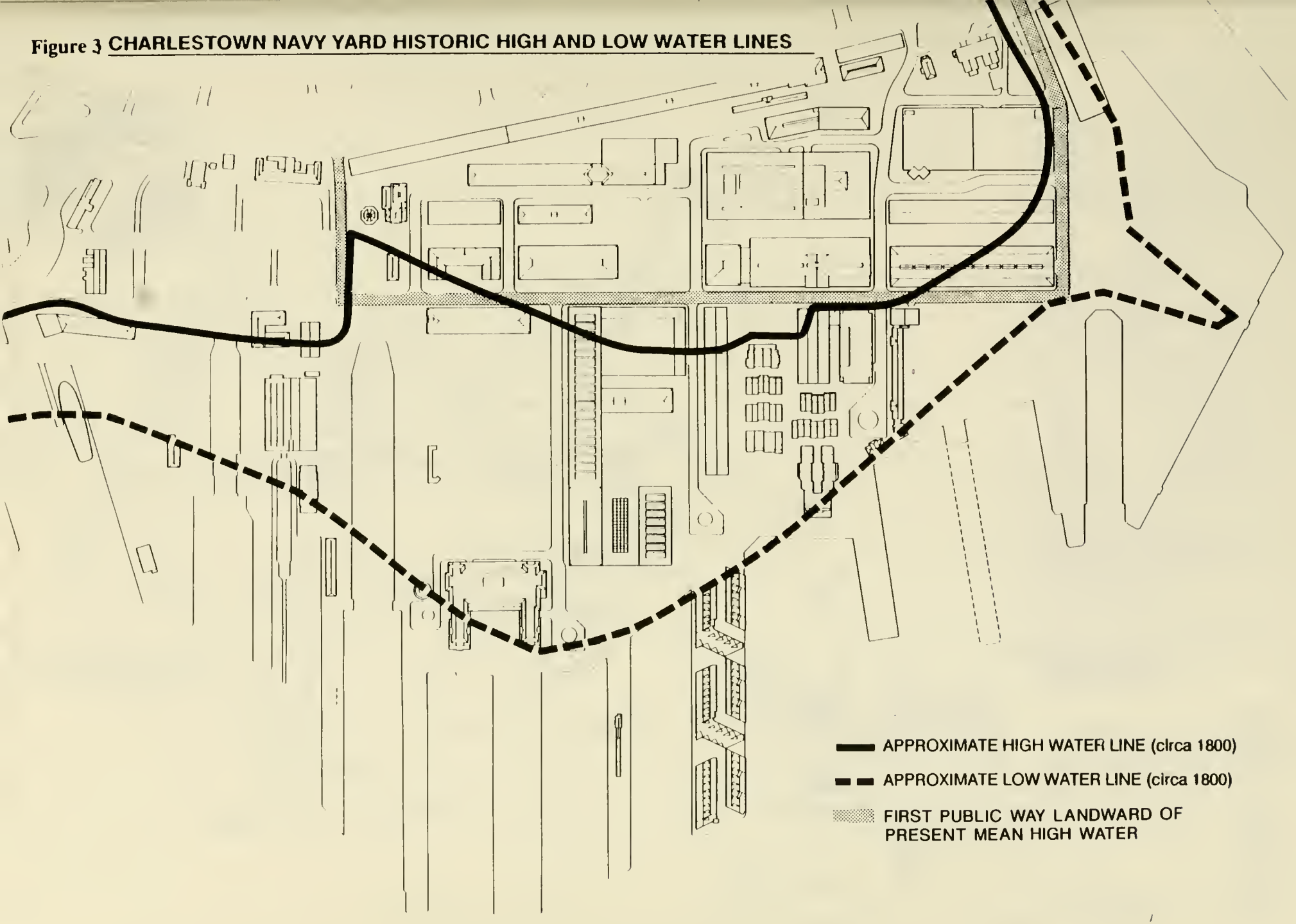

APPROXIMATE HIGH WATER LINE (circa 1800)
APPROXIMATE LOW WATER LINE (circa 1800)
FIRST PUBLIC WAY LANDWARD OF PRESENT MEAN HIGH WATER

**Figure 4**

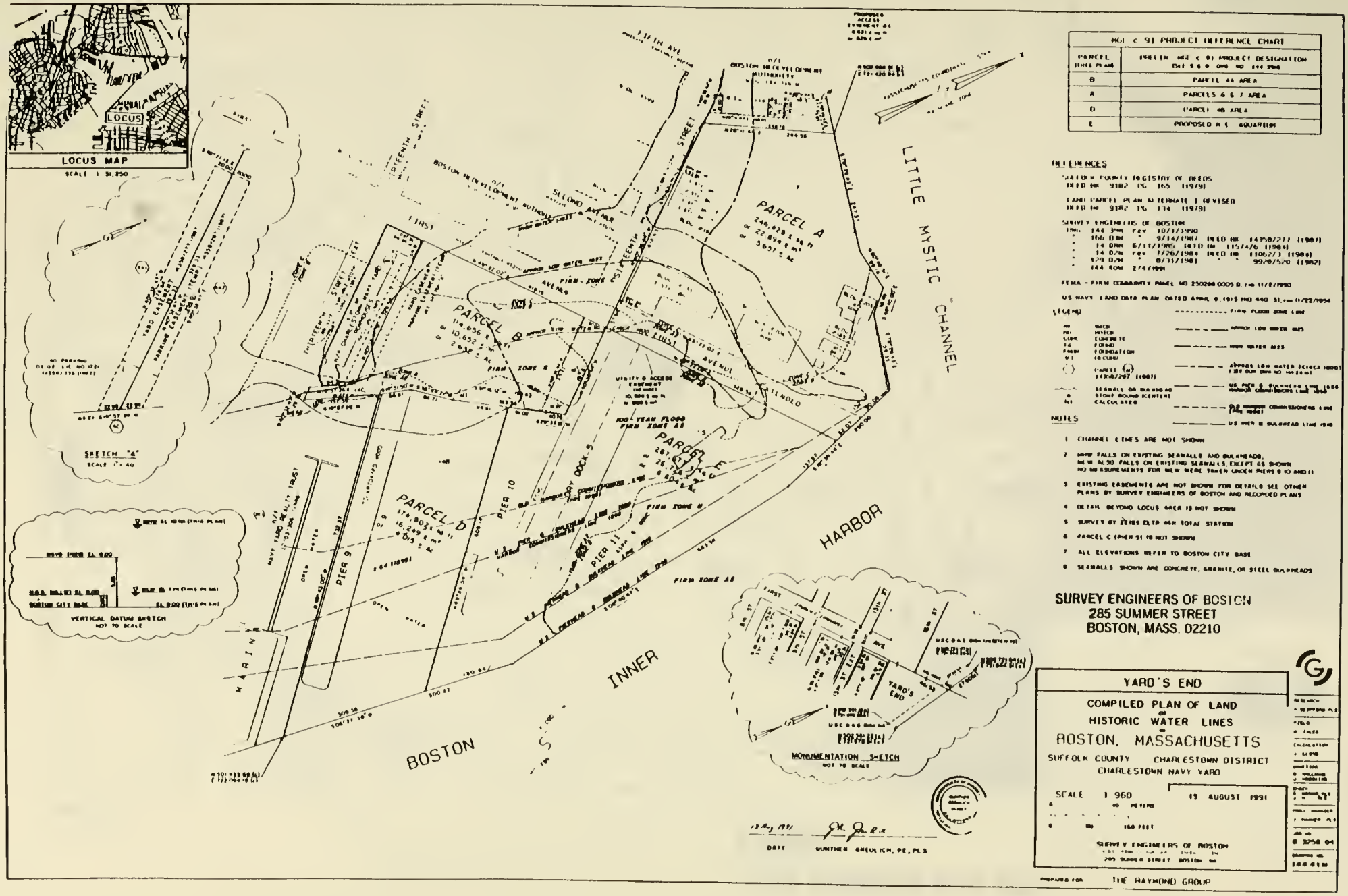

LOCUS MAP
LOCUS
MGL c 91 PROJECT REFERENCE CHART
PARCEL (THIS PLAN)
PARCEL A AREA
PARCELS B & D AREA
PARCEL E AREA
PROPOSED N E EQUARTERM
REFERENCES
NOTES
SURVEY ENGINEERS OF BOSTON
285 SUMMER STREET
BOSTON, MASS. 02210
YARD'S END
COMPILED PLAN OF LAND
HISTORIC WATER LINES
BOSTON, MASSACHUSETTS
SUFFOLK COUNTY CHARLESTOWN DISTRICT
CHARLESTOWN NAVY YARD
SCALE 1 960
15 AUGUST 1991
PARCEL A
PARCEL B
PARCEL D
PARCEL E
PIER 9
PIER 10
PIER 11
LITTLE MYSTIC CHANNEL
HARBOR
INNER
BOSTON
MONUMENTATION SKETCH
VERTICAL DATUM SKETCH
SKETCH "A"
THE RAYMOND GROUP

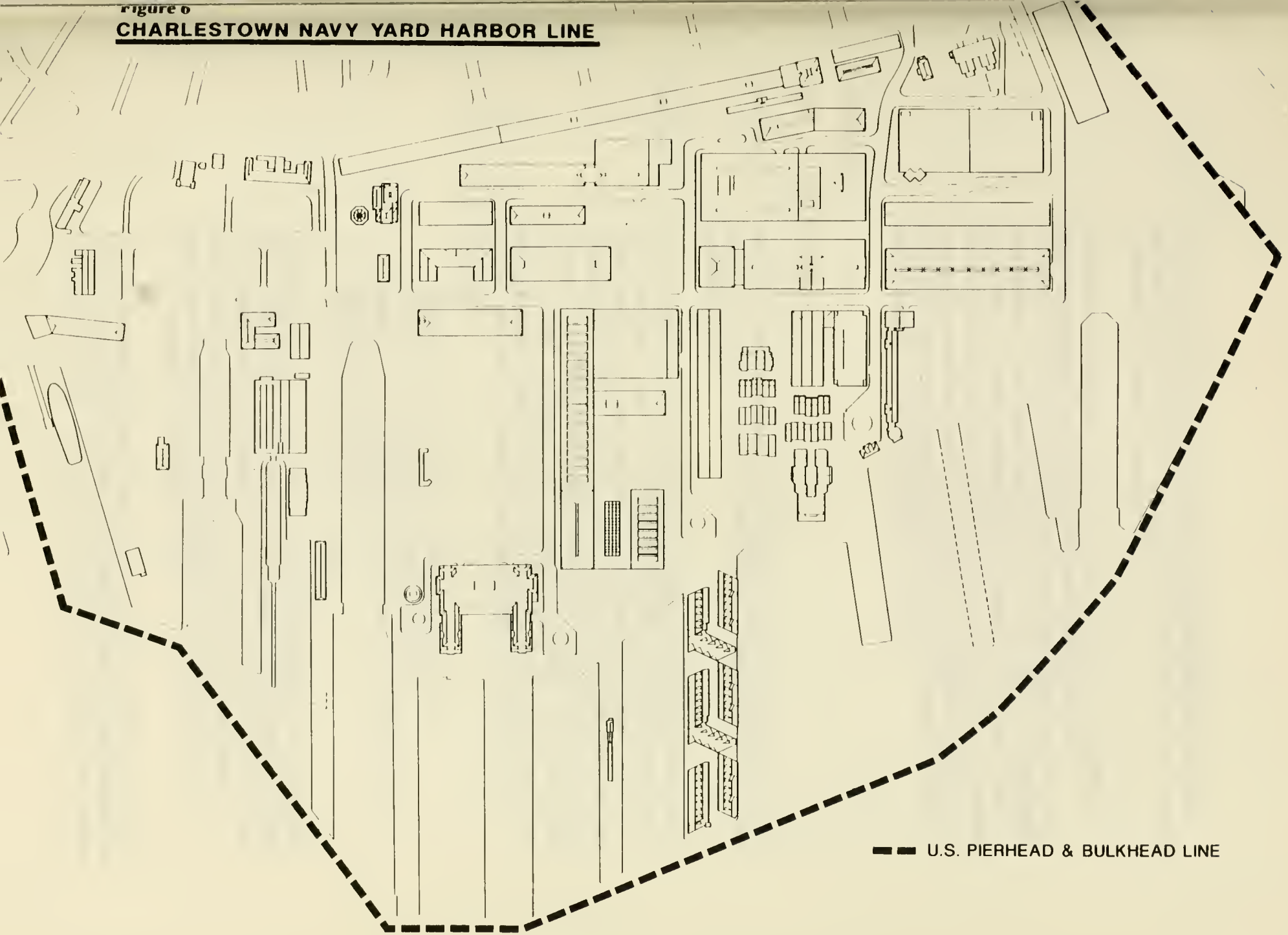
Figure 5

# FIRM

## FLOOD INSURANCE RATE MAP

Figure 6

## CHARLESTOWN NAVY YARD HARBOR LINE




SOURCE: Department of the Army, Boston District, Corps of Engineers

necessary detailed building-by-building title examinations have not been undertaken and are properly the subject of regulatory review in the context of Chapter 91 licensing of specific projects.

The buildings proposed for Yard's End have already been the subject of extensive discussion with CZM and DEP staff in the context of consultations on the Boston Municipal Harbor Plan. These buildings, as contemplated in this FSEIR, are consistent with the terms of the Municipal Harbor Plan, as recently approved by the Secretary. The terms of the Municipal Harbor Plan decision make relatively less important the boundary between Commonwealth and private tidelands. Substitute provisions for Chapter 91 regulatory requirements described in the Secretary's decision apply regardless of where the boundary is located.

**Comment #9**

***Topic:*** *Pier Management Plan*

**Comment:** The FSEIR should include a pier management plan that addresses overall use, development, maintenance, insurance, and operation of the CNY piers and Harborwalk.

**Response:** The extensive amount of pier frontage available at the Charlestown Navy Yard represents a unique opportunity in Boston's Inner Harbor to provide public berthing for a full spectrum of vessels on the waterside, while also offering a full range of public access and Harborpark activities on the pier platforms. The Navy Yard project area includes 14,000 lineal feet of fixed pier or drydock, or nearly 3 miles of available frontage. Pier management plans will be developed in concert with parcel redevelopers and concerned agencies and groups to address issues including but not limited to the following:

- o coordination of uses of the watersheet and pier deck;
- o providing for maintenance and security of piers;
- o assigning responsibilities for daily and special event operations;
- o establishing use fees; and
- o resolving insurance responsibilities.

The principal purposes of such pier management planning will be to allow for the coordination of pier activities to maximize their beneficial use and to implement the commitments of pier owners to accommodate public and water-related activities. Such planning goes beyond the minimum requirements established for the management of areas accessible to the public as provided in 310 CMR 9.35(5).

The pier management plan or plans will apply to all waterfront areas of the Navy Yard to be developed and will cover activities occurring between the building face and the waterways. The described pier management structure

recognizes that specific sectors of the waterfront will require different management agreements and oversight, depending on underlying lease or deed arrangements.

The program for vessel-related uses and setbacks is detailed in the response to Comment #12 of Letter 1, the DSEIR Certificate. Such program is proposed to serve as a guideline for the pier management plan(s) with respect to pier uses and required building setbacks as described in the Navy Yard zoning. The final configuration of piers and docks will, at a minimum, respect the standards set forth, but may in fact exceed those minimums as a result of detailed design development. Similarly, pier and dock uses may change over time and need to be reviewed and modified as part of the pier management plan.

**Comment #10**

***Topic:*** *Open Space Calculation*

**Comment:** The FSEIR should include specific details on the 50% open space determination and identify the location and square footage of each parcel of open space.

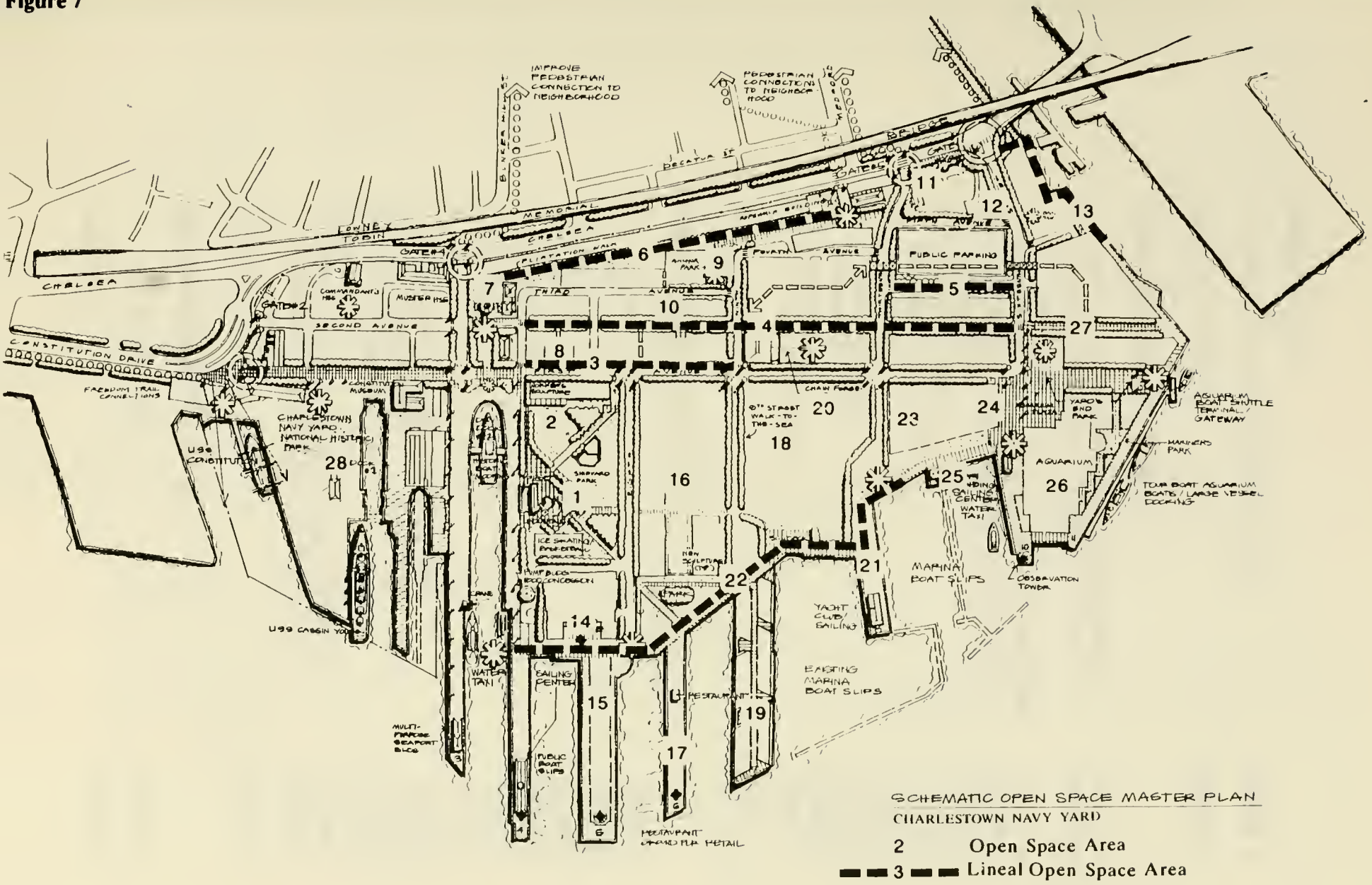
**Response:** The requirement that 50 percent of the area of the Charlestown Navy Yard be reserved for open space is derived from the Harborpark Zoning for the Charlestown Navy Yard (Article 42F of the Boston Zoning Code). This requirement was approved as part of the Boston Municipal Harbor Plan by the Secretary on May 22, 1991. The zoning defines "open space" for the purposes of this requirement at Section 42F-6.

Figure 7 identifies the location of existing and proposed open space areas within the Charlestown Navy Yard. The approximate square footage of each area is indicated on the following chart. This information is organized to provide cumulative totals within each of the three transfer parcels.

The total land and pier area within the National Historical Park is also provided. This area is included within the definition of open space pursuant to Article 42F in recognition of its unique and inherent nature as a park of historic significance. Overall planning for the Charlestown Navy Yard is geared toward integrating the National Historical Park and the remainder of the Navy Yard as more particularly described in the Double Interpretive Loop concept included as Appendix C of this FSEIR.

In summary, existing and proposed open space areas within the Charlestown Navy Yard are as follows:

**Figure 7**




SCHEMATIC OPEN SPACE MASTER PLAN

CHARLESTOWN NAVY YARD

2 Open Space Area

3 Lineal Open Space Area

Public Park Parcel

| | | |
|---|---|---|
| 1. | Shipyard Park (including Piers 3 & 4) | 400,000 sf |
| Total Public Park Parcel | | 400,000 sf |

Historic Monument Area (H.M.A.)

| | | |
|---|---|---|
| 2. | Portion of Shipyard Park located within H.M.A. | 40,000 sf |
| 3. | First Avenue Promenade (north side -- 6th to 9th Street) | 18,000 sf |
| 4. | Second Avenue Pedestrian Mall (6th to 16th Street) | 95,000 sf |
| 5. | Third Avenue Promenade (13th to 16th Street) | 16,000 sf |
| 6. | Flirtation Walk | 105,000 sf |
| 7. | Building 31 Lawn | 5,000 sf |
| 8. | Building 34 Courtyard | 4,000 sf |
| 9. | Anchor Park | 15,000 sf |
| 10. | Building 150 Plaza | 2,000 sf |
| 11. | Captains Quarters | 30,000 sf |
| 12. | Gate #6 | 12,000 sf |
| 13. | Building 114 Harborwalk | 10,000 sf |
| Total H.M.A. | | 352,000 sf |

New Development Area (N.D.A.)

| | | |
|---|---|---|
| 14. | Building 197 | 25,000 sf |
| 15. | Pier 5 | 50,000 sf |
| 16. | Building 42 | 120,000 sf |
| 17. | Pier 6 | 30,000 sf |
| 18. | Building 103 | 15,000 sf |
| 19. | Pier 7 | 20,000 sf |
| 20. | Shipways | 70,000 sf |
| 21. | Pier 8 | 35,000 sf |
| 22. | Pedestrian Easements (Pier 4 to Pier 8) | 85,000 sf |
| 23. | Bricklayers Housing | 8,000 sf |
| 24. | Parcel 4 Hotel | 35,000 sf |
| 25. | Pier 9 | 10,000 sf |
| 26. | New England Aquarium @ Parcel 5/Drydock 5 | 120,000 sf |
| 27. | Biomedical Research Center @ Parcels 6 & 7 | 60,000 sf |
| Total N.D.A. | | 683,000 sf |

National Historical Park (N.H.P.)

| | | |
|---|---|---|
| 28. | Land and Pier Area | 990,000 sf |
| Total N.H.P. | | 990,000 sf |

In accordance with the Charlestown Navy Yard Zoning, a minimum of 50% of the lot area within the Charlestown Navy Yard Subdistrict which includes the New Development Area, Shipyard Park, and the National Historical Park, but excludes the Historic Monument Area, must be developed as open space. The Historic Monument Area exclusion is based upon the fact that a critical element of this area's historic distinction is its coherent and relatively urban character. Existing historic buildings are predominantly constructed directly to the street line with no setbacks.

The total lot area of the Charlestown Navy Yard, excluding the Historic Monument Area, is approximately 2,884,000 square feet. Approximately 1,980,000 square feet of publicly accessible open space, pursuant to the zoning definition, is envisioned within the New Development Area, Shipyard Park, and the National Historical Park at full buildout. This is derived from the foregoing chart as follows:

- Shipyard Park = 400,000 sf
- New Development Area = 590,000 sf
  (683,000 sf total less 93,000 sf of private open space @ Bldg. 103, Shipways & Bricklayers)
- National Historical Park = 990,000 sf
- Total Open Space Pursuant to Article 42F 1,980,000 sf

Accordingly, the Charlestown Navy Yard Master Plan clearly exceeds the open space requirements of the zoning.

At present, the proportion of publicly accessible open space is approximately 58%. Parcels that have not been developed (Parcels 4, 5, 6, and 7 as well as Piers 3, 5, and 9) are not counted as open space for this calculation. The overall percentage of open space will therefore increase as these parcels and their associated open spaces are developed.

The Secretary's determination on the Municipal Harbor Plan requires the BRA to certify that the minimum 50% open space requirement is maintained at the time each individual project moves forward. This will insure the provision of substantial open space at all times during the multi-year phased buildout until and including such time that the entire Charlestown Navy Yard buildout is accomplished.

**Comment #11**

***Topic:*** *Pedestrian Safety*

**Comment:** Concerns regarding the safety of pedestrians using the walkway along the Little Mystic Channel when the New England Aquarium is closed should be addressed.

**Response:** Pedestrians using the walkways along the Little Mystic Channel when the New England Aquarium (NEA) is closed should be as safe or more so than at present for the following reasons:

- The proposed walkway continuing to the Chelsea Street Bridge will be more safe than the existing walkway near the boat ramp parking because of the availability of two exit directions (only one currently exists). In addition, the proposed continuous 12-foot way will allow for a police car to patrol a greater portion of the Little Mystic Channel landward of the Chelsea Street Bridge and then to exit the parking lot. The walkway will be open continuously to the bus and car parking area, allowing free pedestrian movement to the lot and beyond through gates to Terminal Street.

- The Charlestown Navy Yard is now and will continue to be patrolled twenty-four hours per day by a private police force to help assure the safety of pedestrians in the Charlestown Navy Yard. The security force is funded by contributions from the BRA and by a per-square-foot assessment on new developments in the Navy Yard. As new buildings are developed as part of the Charlestown Navy Yard Redevelopment, the level of security funding provided will increase to keep pace with higher levels of activity in the Navy Yard.

**Comment #12**

***Topic:*** *Vessel-related Use Program*

**Comment:** The FSEIR should elaborate on the vessel-related use program and include specific data, analysis of key planning factors, and relate building setbacks to the development requirements of the proposed water transportation facilities.

**Response:** The pier use plan for the Navy Yard, which is described in the DSEIR in Section 2.B.4, Vessel-Related Use Program, and supplemented in the following discussion, presents a broad array of water-dependent uses of the piers on land and water. Included are berths and service areas for the following range of vessel types:

- Large Deep Draft Ships up to 1000 feet in length (Pier 11) and up to 700 feet in length (Pier 3)

- o Historic Vessels and Tall Ships (Piers 3 and 11, and Drydock 2)
- o Ocean-going Research Vessels visiting NEA (Yard's End)
- o Antique Boat Festival, Tug Boat Muster annual events (Piers 3 and 4)
- o Daily Inner Harbor Water Shuttle (Piers 4 and 10 or 11)
- o Public Landings and Water Taxi Docks (Piers 4 and 9 or 10)
- o Courageous Community Sailing Center (Pier 4)
- o Whale Watch Vessels (Pier 10 or 11)
- o Public Marinas (Piers 6, 8, and 9)
- o Temporary or Emergency Berthing (Little Mystic Channel)

On the decks of the piers Harborwalk provides over 14,000 lineal feet of publicly accessible walkway with a variety of inviting amenities, including benches, fishing areas, overlooks, interpretive exhibits, public art, wind and shade shelters, food concessions and vendor locations, and restrooms.

Vessel-Related Use Program

Several comments received on the DSEIR reflected a desire to locate the Yard's End water shuttle dock at Pier 10. A viable, alternative location for this dock is Pier 11. Meritorious arguments have been made for both locations. For example, the Boston Shipping Association (Letter 12) and the Boston Harbor Association (Letter 13) urge a Pier 10 location while the Executive Office of Transportation and Construction (Letter 8) advocates a Pier 11 location. The vessel-related use program presented herein reflects a Pier 10 location for the water shuttle since building setback issues are more critical for Pier 10 than for Pier 11. However, final locational decisions have not been made and can most appropriately be addressed in the context of the development of detailed designs for the marina and the aquarium.

The commitment to provide water shuttle docking facilities at Yard's End -- either at Pier 10 or Pier 11 -- is part of this FSEIR and will help maximize active public use of this area while reducing traffic and parking impacts. The building setbacks outlined in the vessel-related use plan will accommodate either location for the water shuttle dock since a shift from the Pier 10 location depicted in the plan to Pier 11 will entail a shift to an area with a wider building setback. No significant additional environmental impacts are anticipated to be associated with a shift of the water shuttle dock location from Pier 10 to Pier 11, and either location is consistent with the level of water shuttle usage assumed in this FSEIR.

If Pier 10 is ultimately determined to be the preferred water shuttle location, the following planning guidelines for the overall vessel-related use program would obtain:

- o Pier 10
    - Provision of a public water shuttle terminal (120-foot floating dock) with handicapped accessible ramp and shelter.

- Reservation of appropriate length of pier for additional dock to accommodate future anticipated demand.

- Provision of additional floating dock as required to facilitate operation of the Pier 9 marina and New England Aquarium.

o Pier 11

- Provision of 870-foot clear multi-use pier for larger vessels using existing pier head with pilings and bollards. Visiting ships would be relatively infrequent but would be given priority use (estimated average of 10-30 days/year) to include: (1) visiting Naval vessels such as aircraft carriers, cruisers, destroyers with maximum draft of 32 feet; (2) visiting tall ships; (3) visiting merchant vessels; and (4) other large visiting vessels (in excess of 250 feet) requiring deep draft berth and minimal servicing.

- Normal use (estimated 335-355 days/year) would be by New England Aquarium related vessels, including research vessels, exhibit vessels, etc.

- No permanent floating docks would be permitted in areas reserved for large vessels. However, a removable floating dock and ramps for use by smaller vessels could be deployed if needed, which could be easily detached and stored elsewhere when larger ships are using such area of Pier 11.

- Dredge program scheduled for 1994-95 could be used to deepen berth along Pier 11 for largest visiting vessels subject to analysis of pier conditions and approval by the Army Corps of Engineers.

Alternatively, if Pier 11 is determined to be most advantageous for the water shuttle location, the multi-use pier reservation would be modified to 700± feet. Provision of a 120-foot floating dock water shuttle terminal with appropriate expansion capacity would be required.

The remainder of the vessel-related use program would be essentially unchanged regardless of the water shuttle location. It would include the following elements:

o Pier 9

- Provision of a marina of up to 150 slips.

- Accommodation of a water taxi dock, 60-foot public landing and general hotel landing, which facilities could also be

**Figure 8** Yard's End Vessel-Related Use Program

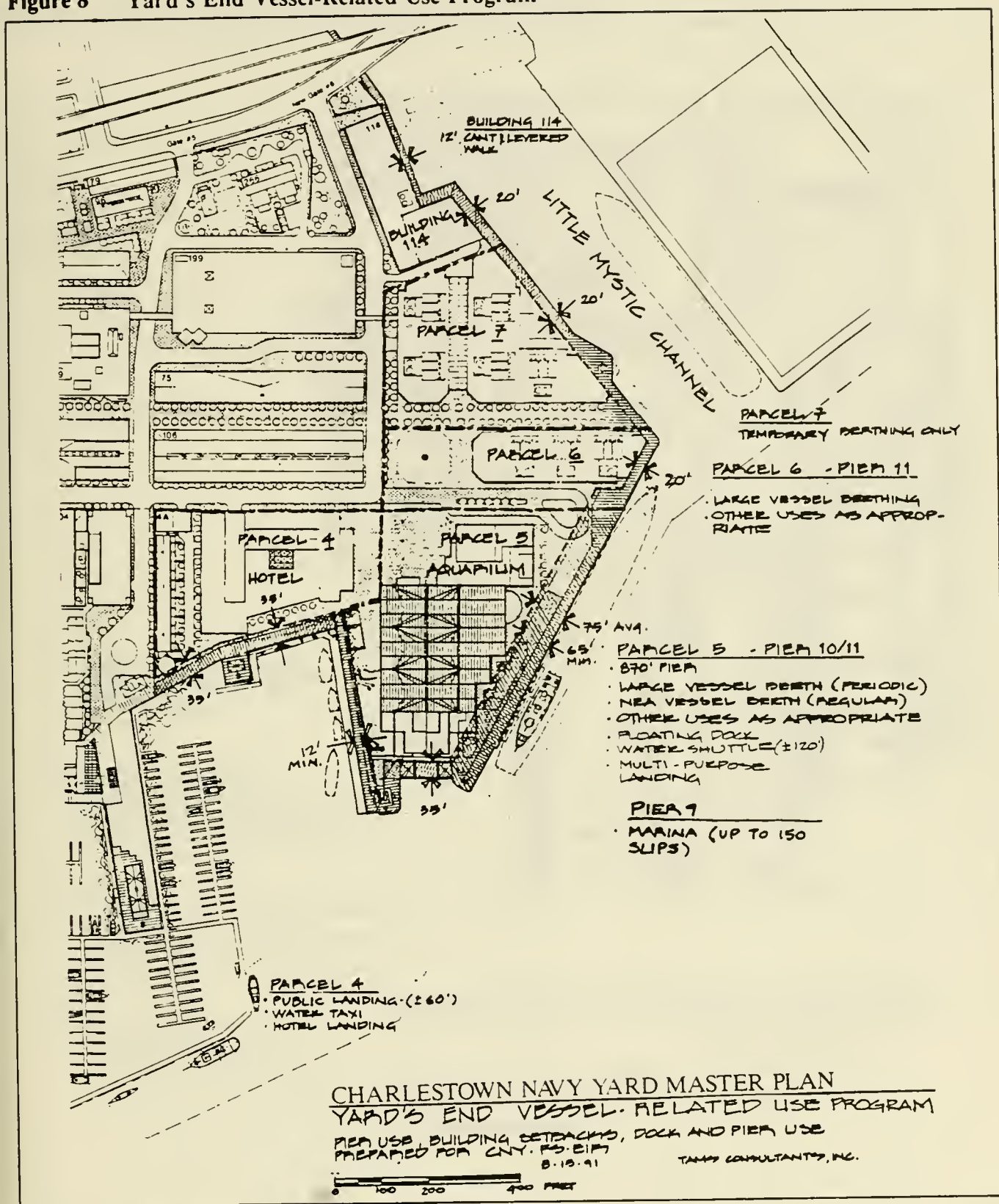
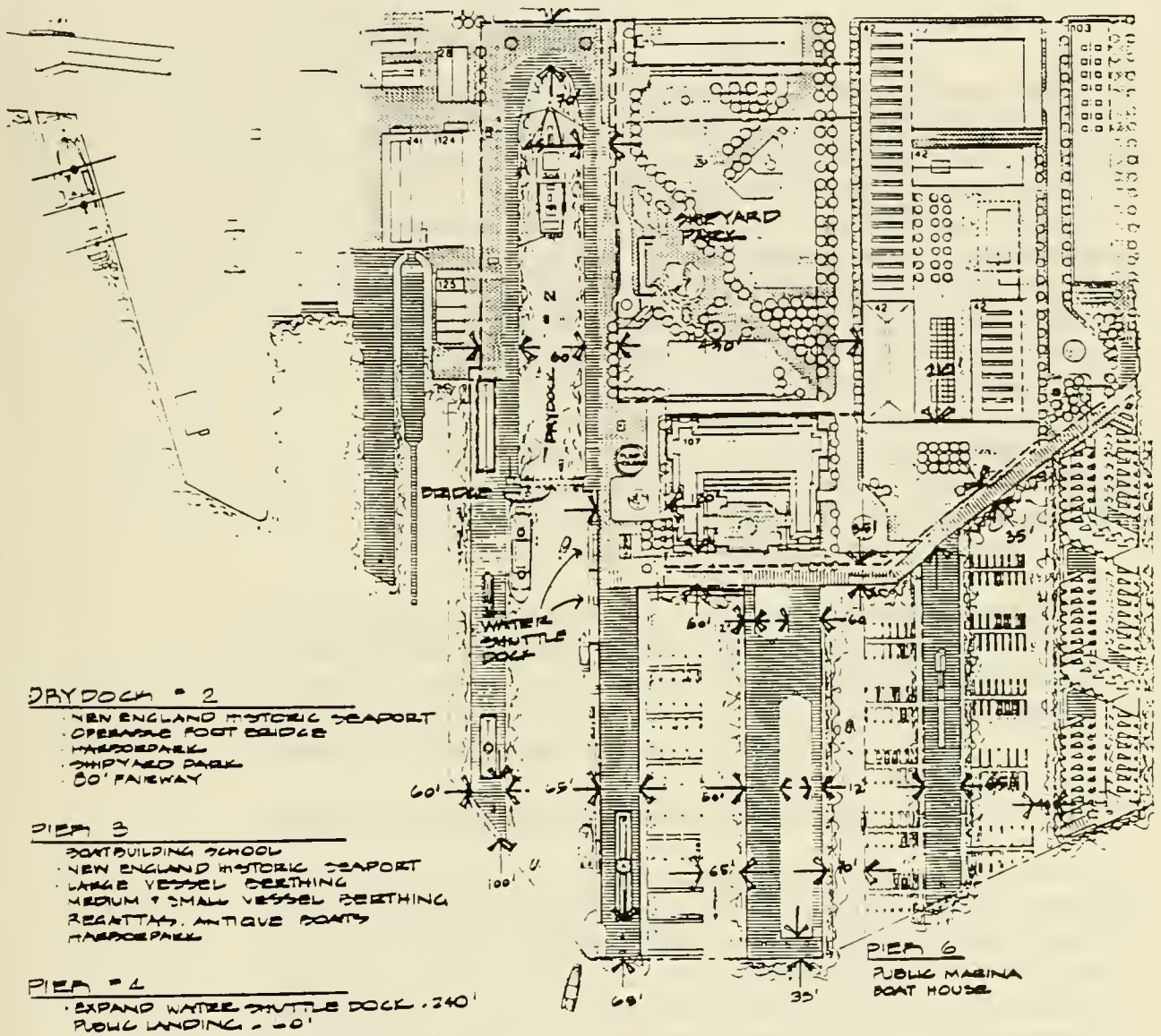


**Figure 9** Piers 3, 4, 5 and 6 Vessel-Related Use Program



accomplished in conjunction with Pier 10 if more complementary use patterns are determined to obtain based on detailed design and resolution of water shuttle location.

o Little Mystic Channel

- The Navy Yard Pier along the Little Mystic Channel will be used only for public walkway access, public safety vehicles, and temporary berthing for vessels. The watersheet, which has silted in at points (some areas with 5-foot to 10-foot depth along the Pier), will not be used for normal vessel berthing purposes in order to leave the channel open for vessel access to Massport's Mystic Pier No. 1 to the north. The pier face may be used periodically for temporary berthing of small or shoal draft vessels, particularly those displaced from Pier 11 while large vessels are there, as it is one of the most protected water sheets in the harbor with limited exposure and a short fetch to the east. Consideration will be given to partial dredging to allow for medium draft (15 feet) vessels. Vessel access beyond the Chelsea Street Bridge is limited to small boats because of very limited bridge clearance (approximately 10 feet).

The vessel-related use program for Yard's End is illustrated on Figure 8. In addition, Figure 9 illustrates the vessel-related use program for Piers 3, 4, 5 and 6. Building setbacks pursuant to the zoning are also depicted on these Figures. These setbacks are tailored to accommodate the vessel-related use program as described in the following.

Building Setbacks to Allow for Vessel-Related Uses

With respect to the new development of Parcels 4, 5, 6, and 7, and the reuse of Building 114, the setbacks stipulated in the zoning vary depending upon pier use and configuration. The south facing Harborwalk in front of Parcel 4 will be a minimum of 35 feet to correspond to the width of the walk connecting to Pier 4. Additional open space will be provided, with final configuration dependent on detailed project design. For purposes of the public marina and hotel dock, the 35-foot width is ample for truck servicing, public safety, and pedestrian use. The width of the walk is wider than found on most existing piers in the downtown and is comparable to the plaza in front of Rowes Wharf.

Along the side of Pier 10 a minimum 12-foot setback is available expanding to 12 feet and then expands to 35 feet with a harbor observation area at the pier end. This width, combined with a greater plaza setback at the inboard end, is sufficient to allow for water shuttle and pedestrian use as well as basic public safety access. For example, Commonwealth Pier presently accommodates passenger embarkation and debarkation for large excursion vessels with a similar building setback from the high water mark.

Service vehicles are not presently anticipated along this portion of the pier edge. A greater setback width would be required in the event service vehicles were to use this area routinely.

On the Pier 11 side of the Aquarium, there is a mandatory 75-foot average and 65-foot minimum setback. The primary purpose of the large apron is to allow for the servicing and access to periodic visits by large ships as well as more frequent visits by research vessels to the New England Aquarium. The broad apron would accommodate service needs and gangways while providing a reasonable buffer for the Aquarium. When not being used for larger vessel berthing, the broad setback area would serve as a major Harborpark public open space and waterfront promenade at Yard's End, while also being suitable for special events around vessel visits like those staged in tents near the U.S.S. Constitution. The promenade could also serve as a viewing area for Aquarium exhibits.

The Pier 11 face along Parcel 6 is 20 feet, allowing for large vessel mooring lines, Harborwalk access, and public safety and service vehicles. No permanent small boat docks would be permitted along the portions of Pier 11 face reserved for large vessels to ensure availability for deep draft (32 feet) berthing.

The northeast pier face on the Little Mystic Channel would serve as a pedestrian and service access way with a 20-foot width. The narrower width reflects the choice to preclude all but temporary vessel berthing along the partially silted pier face. The pier would only accommodate vessel berthing as an emergency or overflow location, such as on a 4th of July celebration, or when Pier 11 was being used by a larger vessel. Spot dredging may be needed to improve the temporary berthing.

The Building 114 face currently sits on the bulkhead edge but will receive an outboard pile-supported 12-foot walkway to allow for continuity of the Harborwalk and emergency access. No permanent vessel uses are proposed along this pier face, which at this point has vestigial pile fields from earlier bridgeworks.

**Comment #13**

***Topic:*** *Wind and Shadow Impacts*

**Comment:** The FSEIR must specify its program to mitigate adverse wind and shadow effects in the Yard's End and describe the standards, guidelines, and documentation procedures that will serve as the framework for mitigation decisions.

**Response:** Analyses of the potential wind and shadow effects resulting from the proposed development at the Yard's End portion of the Navy Yard are included in this FSEIR. Appendix F consists of wind studies of the

proposed Yard's End buildings prepared by Frank H. Durgin, P.E. Appendix G consists of computerized shadow studies of Yard's End prepared by Sasaki Associates. These studies indicate that full buildout will have minimal adverse impact on pedestrian-level wind and shadow conditions and that identified impacts can be effectively mitigated.

The MEPA Office, on August 23, 1991, approved the Section 61 Findings filed by the BRA for the Parcel 4 Hotel and Building A of the Biomedical Research Center and determined that the filing of these documents concluded the MEPA process established in the Secretary's January 2, 1991 letter with respect to these facilities. These Findings evaluated, among other items, the potential wind and shadow impacts of these respective buildings and described the mitigation measures to avoid or minimize the minimal impacts associated with their construction.

The BRA has taken, and will take, all feasible mitigation measures to avoid or minimize the minimal wind and shadow effects associated with the proposed project development. The design and massing of the proposed buildings have undergone extensive study during the past year and a half in order to minimize potential adverse wind impacts. For example, the mid-rise wings of the Hotel were set back from the ground level by 30-foot high podiums, mitigating the impact of deflected winds on the ground-level pedestrian environment, and the main entrance of the Hotel will be located under an arcade and thus will be protected from all winds.

Significant modifications also have been made in the design of the proposed Biomedical Research Center to minimize the potential for adverse pedestrian-level wind conditions. The current L-shaped design of the mid-rise element of Building B along the Harborwalk, and the lower portions of the building between the wings, act to deflect the winds drawn down the facades of the taller elements. Temporary wind impacts, pending the completion of full development at Yard's End, will be mitigated by the interim installation of wind breaks such as trees, shrubbing plantings, or architectural wind screens. Awnings or canopies, pedestrian arcades, and other variations in the facades of the proposed buildings also can serve to lessen wind impacts.

Similarly, design modifications also have mitigated potential shadow impacts of the new developments. These modifications have included a reduction in the height of Buildings A and C of the Biomedical Research Center and a set-back of the 135-foot wing of the Hotel from Yard's End Park and the Aquarium entrance plaza. Shadows cast on the northerly portion of the Harborwalk, on the other hand, cannot feasibly be mitigated, since even a one-story building in this location would cause similar results.

The BRA has established two guidelines for assessing the relative wind comfort of pedestrians. The primary criterion is the BRA wind design guideline which states that an effective gust velocity of the wind exceeding

31 mph one percent of the time should be avoided to the extent practicable. This criterion, which was derived primarily from studies conducted in downtown Boston correlating measured wind speeds with observed responses of pedestrians, was selected as the primary criterion because it reflects local perceptions of acceptable wind levels and because it is a relatively straightforward, easily interpreted, design guideline.

The second set of criteria used by the BRA to evaluate pedestrian-level winds is the Melbourne "International Pedestrian Comfort Criteria." These are probabilistic criteria for hourly average pedestrian-level winds which reflect safety considerations and the different types of human activity which could be accommodated within each criteria level. Melbourne established five categories of human conform criteria: (1) "unacceptable and dangerous," (2) "uncomfortable for walking," (3) "acceptable for walking," (4) "acceptable for short periods of standing or sitting," and (5) "acceptable for long periods of standing or siting." The following restates his criteria for winds with a 100-hour return period (one percent probability) occurrence.

Melbourne's Criteria for 100-Hour Return Period Pedestrian Level Winds

| Category | Description | Mean Wind Speed (mph) |
|---|---|---|
| 1 | Unacceptable and dangerous | 27 < Uav |
| 2 | Uncomfortable for walking | 19 < Uav < 27 |
| 3 | Acceptable for walking | 15 < Uav < 19 |
| 4 | Stationary, short exposure | 12 < Uav < 15 |
| 5 | Stationary, long exposure | Uav < 12 |

Both the elective gust velocity and the Melbourne criteria represent guidelines that must be applied with judgment and discretion, particularly in exposed waterfront locations that under certain circumstances will experience high winds regardless of the presence or absence of buildings. The application of these standards to a specific set of building configurations is illustrated in the wind study by Frank Durgin, P.E., which are included in the FSEIR as Appendix F.

For shadow impacts, the criterion for establishing whether there is an adverse impact is whether a pedestrian thoroughfare, public open space, park, or plaza area is subject to shadows cast by a proposed development for an unacceptable length of time during the day or at a time when a walkway or open space would experience maximum use, such as at lunchtime. The presence of shadows, however, is not necessarily adverse. Shading occurring on a hot, humid, summer day could be very desirable whereas winter shadows may lead to uncomfortable conditions. Thus the

season of the year and the time of day are important considerations for determining the acceptability of shadows produced by a proposed development. Shadow studies are included in the FSEIR as Appendix G.

**Comment #14**

***Topic:*** *Pier 5 Housing*

**Comment:** Issues regarding dimensional requirements, scale, lower floor residential use, and evacuation planning prior to a severe coastal storm for the proposed Pier 5 housing should be addressed in the separate EIR to be prepared for the project.

**Response:** As noted in the Secretary's comment, the dimensional requirements and limitations on residential use for Pier 5 will be addressed in the separate EIR for that project.

**Comment #15**

***Topic:*** *Building 114*

**Comment:** An alternative use for Building 114 that is more compatible with the waterways standards needs to be presented and analyzed in the FSEIR.

**Response:** The alternative presented and analyzed below in response to this comment involves the redevelopment program which received final designation from the BRA and also had secured other regulatory permits and approvals including necessary MEPA approvals toward an anticipated construction start in 1988. This alternative included approximately 90,000 square feet of office and retail space within Building 114, a 45 slip marina, and a 10,000 square foot interior boatworks facility.

This alternative was chosen for analysis because it reflects an actual program actively pursued by a development team and in particular, because it included water-dependent uses that take advantage of the building's location on the Little Mystic Channel.

- Transportation

In terms of transportation impacts, the alternative use program would generate more than twice the projected traffic than the reuse currently planned. This is because the 75,000 square feet of biomedical research uses envisioned for Building 114 in the DSEIR would accommodate only about half of the number of employees than a similar area of office use would under the alternative program. Furthermore, the transportation section of the DSEIR indicates that the Navy Yard's biomedical research uses experience a high degree of non-auto mode share.

- Water and Sewer

Water and sewer use for the alternative use program also would increase as a result of greater employment density. This could, however, be offset by the requirements of the actual research uses.

- Historic Resources

Impacts on historic resources can be presumed to be similar for both alternatives inasmuch as historic preservation officials have approved the reuse and addition to Building 114 presented in the DSEIR. The alternative discussed herein likewise received such approval.

- Shadow

The public area not impacted by shadows from the proposed alternative would be the walkway to the northeast of the building mass. As described in the shadow impacts section of the DSEIR, because of this orientation building heights reduction to one story would not appreciably increase sunlight along this walkway. This is clearly not accomplished in the alternative use program since the existing building height is 48 feet.

- Air Quality

In terms of the air quality, the alternative use would be expected to create additional impact as a result of the additional traffic which would be generated.

- Waterways

The alternative use program involved rehabilitation of only the shell of Building 114. The shell is within the 55-foot height specified within 100 feet of the high water mark pursuant to Chapter 91. Accordingly, the alternative would have less impact in terms of Chapter 91 height standard. However, the proposed marina, which was an integral component of the boatworks use, was judged to have adverse impact on the use of the Little Mystic Channel by large draft vessels. The Massport, The Boston Harbor Association, and Boston Shipping Association Inc., Comment Letters 11, 12 and 13 support the current water-side use plan for the Little Mystic Channel, which does not include a marina use.

In addition, a continuous water's edge public walkway is now proposed along the entire Little Mystic Channel frontage of the Charlestown Navy Yard. Such a walkway would conflict with the boatyard facility. The 1988 plans terminated the public walkway at Parcel 6.

o Financial Feasibility

The alternative reuse program was not able to attract necessary financing. As a result, the shell of Building 114 continues to stand vacant and to deteriorate. It was the site of a fire that heavily damaged the southeastern portion of the building. As a result of the fire, the scope and cost of necessary remedial work has increased, thereby further impacting financial feasibility of the alternative use.

o Comparison to Proposed Alternative

The currently proposed reuse of Building 114 compares favorably with the alternative plan for this site. As noted, the environmental impacts of the proposed reuse of Building 114 are, in general, less than those of the alternative. This is true for the impact areas of transportation, water and sewer, and air quality. Impacts are comparable in the areas of historic resources and shadows. With respect to waterways issues, the more intensive use of the waterfront associated with the boatyard and marine use is consistent with Chapter 91 regulatory policies, but was not acceptable to agencies and interest groups concerned with shipping and navigation in the Little Mystic Channel adjacent to the site.

The height associated with the proposed reuse of Building 114 exceeds the Chapter 91 standard, but does so in order to increase the financially viability of the project and help overcome the economic obstacles that have thus far prevented any rehabilitation of the Building 114 shell.

It is worth noting that the agency comment letter from which the DSEIR Certificate may have drawn a portion of its discussion on the height of Building 114 inaccurately describes the proposed addition. In particular, Letter 6 states that "a substantial portion of Building 114 will become 125 feet taller." The proposed overall height of the addition approved by the Department of the Interior is 96 feet, which results in a 48-foot rather than a 125-foot increase over the present height of Building 114. Furthermore, the addition is proposed to occur over only 33% of the combined building footprint.

o Conclusion

As is apparent from the foregoing, the analysis of an alternative use program for Building 114 clearly indicates an overall balance of benefits favoring the proposed use of this structure as envisioned in the DSEIR.

**Comment #16**

*Topic:* *Double Interpretive Loop*

**Comment:** The Double Interpretive Loop needs further development in the FSEIR. Pier 5 may be an appropriate location for year-round special facilities on a pier in the CNY.

**Response:** Further development of the Double Interpretive Loop is included in Appendix C of this FSEIR. Pier 5 has been included as a location for year-round special facility of public accommodation to be developed in accordance with the Secretary's May 22, 1991, decision on the Boston Municipal Harbor Plan. Detailed program development will be addressed in the separate EIR which will be prepared for the Pier 5 project.

**Comment #17**

*Topic:* *Chapter 91 Licenses*

**Comment:** The FSEIR should identify which individual projects require a Chapter 91 license and should examine and identify individual projects which meet DEP's non-waivable standards.

**Response:** Most of the standards contained in the Chapter 91 regulations are non-waivable (only 8 specific numeric or use standards make allowance for waiver). Many of the non-waivable standards set forth in the regulations involve discretionary determinations by DEP. With this in mind, the BRA has reviewed the buildings and structures proposed as part of the Charlestown Navy Yard Redevelopment in the context of the standards contained in Parts III and IV of the regulations. The BRA is not aware of significant deviations of the buildings and structures as proposed from the terms of these non-waivable standards, subject to the possibility that the Department may exercise its discretion in a manner not anticipated by us. The projects described in this FSEIR will continue to be refined as designs are further developed, and certain refinements will have Chapter 91 implications. However, it is anticipated that project designs will be developed in full compliance with applicable Chapter 91 standards.

The Department has noted a possible encroachment of a marina structure over the State Harbor Line. This encroachment is discussed in the Response to Comment #6 of the letter from the Wetlands and Waterways Division of the Department of Environmental Protection (Letter 5). The De partment also has noted concerns regarding uses of Building 114. An alternative use program is examined in the Response to Comment #15 of the DSEIR Certificate (Letter 1). It is anticipated that any concerns regarding these specific developments will be resolved to the Department's satisfaction in the context of licensing.

With respect to which individual projects require a Chapter 91 license, see the response to Comment #8 of the DSEIR Certificate (Letter 1).

**Comment #18**

***Topic:*** *Pier 8 Marina*

**Comment:** An analysis needs to be done to determine if the marina on Pier 8 extends seaward of the State Harbor Line and, if so, its effect on navigability.

**Response:** Comment noted. This comment concerns the existing marina at Pier 8, not the proposed marina at Piers 9 and 10. The developer of Pier 8 is now working to resolve this issue in consultation with state agencies and the Corps of Engineers. The developer is aware that a Chapter 91 license cannot issue for the marina at Pier 8 until the problem is resolved.

**Comment #19**

***Topic:*** *Restaurants*

**Comment:** Any restaurant use must be justified when requesting tidelands licensing.

**Response:** The comment is noted.

**Comment #20**

***Topic:*** *Zoning*

**Comment:** The FSEIR will need a zoning map of the project site and a more detailed description of zoning.

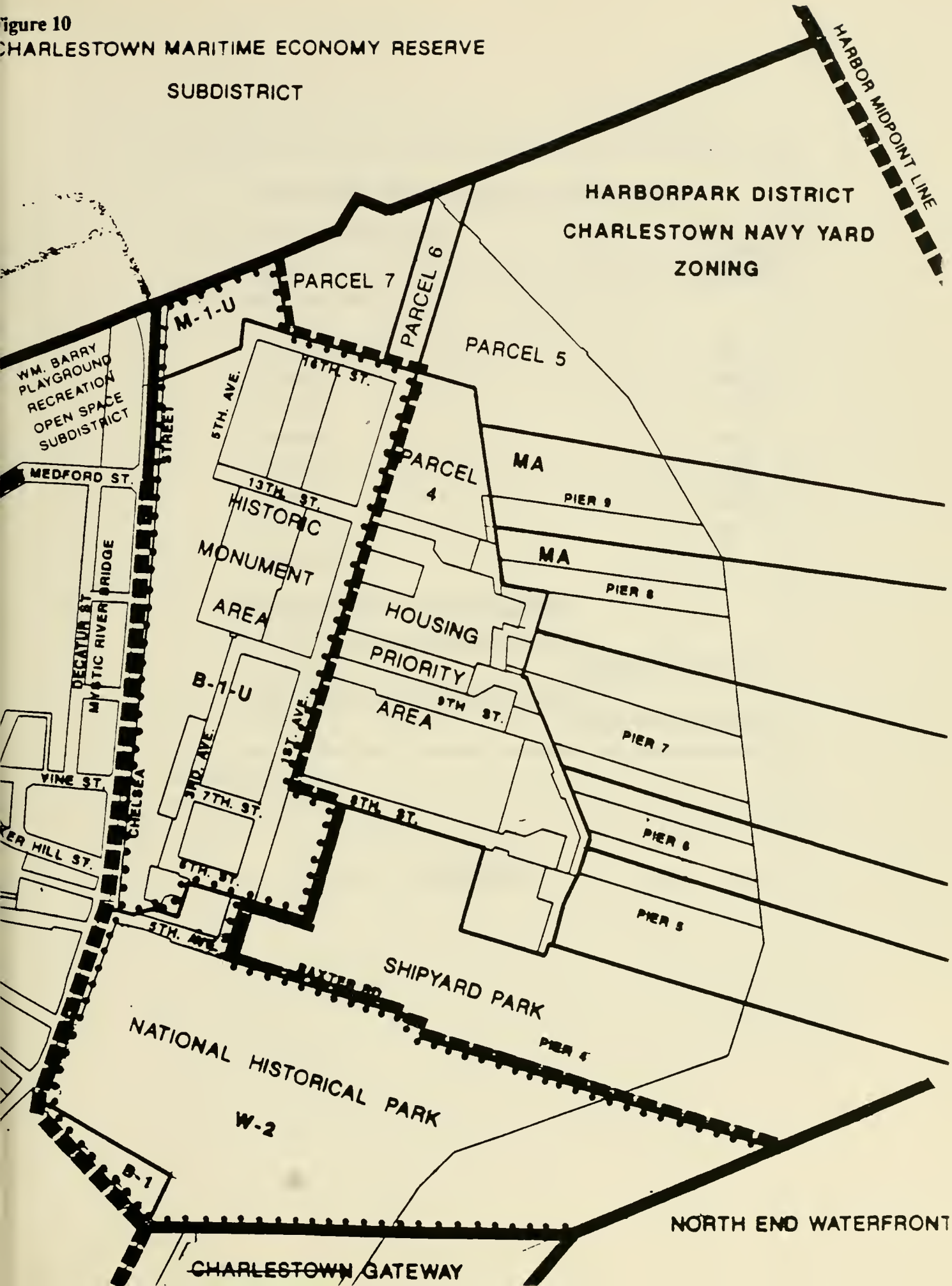
**Response:** A zoning map of the Charlestown Navy Yard (Figure 10) is included with this response. The following summary of the zoning for the Charlestown Navy Yard is adopted from that set forth in the Charlestown Navy Yard Master Plan:

The zoning for the Charlestown Waterfront area replaces the Harborpark Interim Planning Overlay District (IPOD). The Harborpark IPOD was created in March 1987 to establish temporary zoning to assure appropriate growth and to protect the waterfront from inappropriate uses, permitted by the underlying zoning, while permanent zoning was being established. Since the IPOD was created, a comprehensive planning study has been developed, which the new zoning implements. The Charlestown Waterfront zoning plan includes:

Figure 10

CHARLESTOWN MARITIME ECONOMY RESERVE

SUBDISTRICT



## CHARLESTOWN NAVY YARD SUBDISTRICT

——— Parcel or Pier Boundary

| Map Key | Maximum Height |
|---|---|
| ▬ ▬ ▬ New Development Area: | |
| Housing Priority Area | 65' |
| Parcel 4 | 90'/135'* |
| Parcel 5 | 110' |
| Parcel 6 | 125' |
| Parcel 7 | 155' |
| Pier 5 | 55'/75'* |
| Pier 7 | 35' |
| Piers 6, 8, 9 | 35' |
| Shipyard Park: OS (Open Space) Subdistrict | |
| • • • **Historic Monument Area (Special Study Area 1) B-1-U, M-1-U | *See Section 8-7, Table B* |
| • • • **National Historical Park (Special Study Area 2) W-2, B-1 | *See Section 8-7, Table B* |

*See Section 42F-12.2
**See Section 42F-12.5

See Article 42F

A Housing Priority Area is established in the Navy Yard, in which two-thirds of any project must be housing. The Housing Priority Area includes piers and the area directly landward of them. Overall, housing in the Navy Yard will be 25% affordable.

Outside of the Historic Monument Area, fifty percent (50%) of all project areas must be preserved as open space with a major portion dedicated to the public. Public access requirements require projects to provide a continuous walkway along the water, open to the public. In order to ensure that public access to the waterfront is maintained, setback provisions of 35 feet from the ends of piers and 12 feet from the sides of all piers are required. Public access requirements include a continuous walkway along the water, open to the public, called Harborwalk. Shipyard Park is established as an Open Space Subdistrict.

Proposed projects on all waterfront lots must conform to environmental protection and safety standards for trash disposal, areas for recyclable materials, and provision of safety ladders. Safety ladders must be located every one hundred (100) feet along portions of the water with seawalls, piers, and wharves.

Within the Historic Monument Area, no zoning changes will be proposed until completion of an historic preservation review process with preservation groups.

In Yard's End, height limits range from 35 feet on Piers 6, 7, 8, and 9 to 110 feet on the site of the new Aquarium, to 90 feet next to the Bricklayers housing stepping up to 135 feet for the planned hotel, up to 155 feet where the new research center will be located. Linkage contributions from the research center will assist affordable housing in Charlestown and other areas of the City of Boston. The zoning also provides that building heights in the New Development Area are subject to the Revised Design Guidelines included as Appendix A of this FSEIR.

The Zoning Plan reflects the metered build-out provided in the Charlestown Navy Yard Master Plan. Occupancy of buildings at Yard's End prior to January 1, 1994 -- the projected completion date of the Central Artery North Area (CANA) Project -- will be limited to the Aquarium, the hotel, Phase I of the research center, and Building #104 affordable housing development. Only after this time may Phase II of the research center be occupied when regional transportation improvements now in progress have been completed.

Proposed Navy Yard zoning includes provisions to ensure that specific impacts of each individual development are identified and mitigated. This is accomplished through extending the Article 31 Development Review requirements to the Navy Yard. A Transportation Access Plan that includes a detailed analysis of existing traffic conditions, potential project impacts, and measures for mitigating adverse impacts will be required for each new project over 50,000 square feet in gross floor area.

Limits on rooftop additions are established, stating that no roof structure may be erected or enlarged on the roof of an existing building without public notice and a public hearing. Roof structures must be architecturally consistent with the distinctive historical and architectural character of the area, and with the Program of Preservation and Utilization or [Revised] Design Guidelines.

At least 40% of the first floor of any project on piers must be devoted to facilities of public accommodation. No residential uses will be permitted on the first floor on piers.

The massing and character of buildings should ensure the blending of new and old architecture along the waterfront. Buildings should be set back to allow for waterfront walkways, and massing and heights should be stepped up from the water's edge to allow for views of and from the waterfront, and to provide a transition from the waterfront to the downtown skyline.

Ultimately, these efforts will restore the harbor as a key resource for the city's social and economic life. The Harborpark District Zoning Plan ensures that the city's residents, workers and visitors will be able to take full advantage of the great natural resources offered by the harbor and surrounding waterfront.

**Comment #21**

***Topic:*** *Level of Service Analysis*

**Comment:** The level of service analysis in the FSEIR should consistently include volume/capacity figures.

**Response:** The DSEIR contains a separate discussion of volume-to-capacity (v/c) ratios for the analysis of City Square. These v/c values have been included in the level of service summary tables for all other study area signalized intersections in the following tables (Tables 1-5).

Volume-to-capacity ratios cannot be developed for unsignalized intersections using analysis techniques described in the 1985 Highway Capacity Manual (see Tables 6 and 7).

**Comment #22**

**TABLE 1**
**Existing (1991) Level of Service Results**
**Signalized Intersections**

| Intersection | AM Peak Hour | | | PM Peak Hour | | |
|---|---|---|---|---|---|---|
| | Delay (sec.) | LOS[1] | V/C | Delay (sec.) | LOS[1] | V/C |
| Chelsea Street/Gate #4 | 8.2 | B | 0.36 | 8.9 | B | 0.30 |
| Chelsea Street/Gate #5 | 2.2 | A | 0.32 | 3.4 | A | 0.43 |

[1] LOS = Level of Service

[2] V/C = Volume to Capacity Ratio

## TABLE 2
## 1998 Level of Service Results
## Signalized Intersections

| Intersection | 1998 Approved Plan | | | | | | 1998 Proposed Plan | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | AM Peak Hour | | | PM Peak Hour | | | AM Peak Hour | | | PM Peak Hour | | |
| | LOS[1] | Delay (sec.) | V/C[4] | LOS[1] | Delay (sec.) | V/C[4] | LOS[1] | Delay (sec.) | V/C[4] | LOS[1] | Delay (sec.) | V/C[4] |
| City Square | E | 51.0 | 1.08 | F | 71.4 | 1.16 | E | 42.4 | 1.04 | F | 83.2 | 1.20 |
| Chelsea/Gate 4 | B | 6.7 | 0.48 | B | 8.7 | 0.56 | B | 7.5 | 0.51 | B | 9.1 | 0.66 |
| Chelsea/Gate 5 | A | 1.4 | 0.40 | A | 2.8 | 0.62 | Unsignalized[3] | | | Unsignalized[3] | | |
| Chelsea/Gate 6 | N/A[2] | | | N/A[2] | | | A | 1.9 | 0.20 | A/B | 5.2 | 0.43 |

[1]LOS = Level of Service.
[2]This intersection does not exist under the Approved Plan conditions.
[3]The signal at Gate #5 is removed under Proposed Plan conditions.
[4]V/C = Volume to Capacity ratio.

## TABLE 3
## 2005 Level of Service Results
## Signalized Intersections

| Intersection | 2005 Approved Plan | | | | | | 2005 Proposed Plan | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | AM Peak Hour | | | PM Peak Hour | | | AM Peak Hour | | | PM Peak Hour | | |
| | LOS[1] | Delay (sec.) | V/C[5] | LOS[1] | Delay (sec.) | V/C[5] | LOS[1] | Delay (sec.) | V/C[5] | LOS[1] | Delay (sec.) | V/C[5] |
| City Square | F | 65.9 | 1.14 | F | 96.5[2] | 1.23 | F | 66.8 | 1.15 | F | > 100[2] | 1.31 |
| Chelsea/Gate 4 | B | 6.7 | 0.48 | B | 9.0 | 0.58 | B | 8.1 | 0.60 | B | 10.0 | 0.74 |
| Chelsea/Gate 5 | A | 1.5 | 0.40 | A | 3.0 | 0.64 | Unsignalized[4] | | | Unsignalized[4] | | |
| Chelsea/Gate 6 | N/A[3] | | | N/A[3] | | | A | 1.6 | 0.30 | B | 5.5 | 0.49 |

[1]LOS = Level of Service.
[2]Equations to calculate delay do not yield meaningful results when volume to capacity ratios exceeds 1.20. Therefore, values exceeding 100 seconds are not shown.
[3]This intersection does not exist under Approved Plan conditions.
[4]The signal at Gate #5 is removed under Proposed Plan conditions.
[5]V/C = Volume to Capacity ratio.

**TABLE 4**
**1998 Level of Service Results**
**City Square Mitigation Analysis**

| Case | 1998 Approved Plan | | | | | | 1998 Proposed Plan | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | AM Peak Hour | | | PM Peak Hour | | | AM Peak Hour | | | PM Peak Hour | | |
| | LOS[1] | Delay (sec.) | V/C[4] | LOS[1] | Delay (sec.) | V/C[4] | LOS[1] | Delay (sec.) | V/C[4] | LOS[1] | Delay (sec.) | V/C[4] |
| Without Mitigation | E | 51.0 | 1.08 | F | 71.4 | 1.16 | E | 42.4 | 1.04 | F | 83.2 | 1.20 |
| Mitigation | | | | | | | | | | | | |
| Add Chelsea Street Right Turn Lane[2] | -- | -- | | -- | -- | | N/A[3] | | | E | 54.3 | 1.11 |

[1]LOS = Level of Service.

[2]Right turn lane is added in the PM peak period by restricting the proposed on-street parking between the hours of 4-6 PM.

[3]No mitigation is required since delay decreases between the Approved Plan and Proposed Plan conditions. If the parking restriction were also added during the AM peak operation would improve to LOS D and 35 seconds of delay.

[4]V/C = Volume to Capacity ratio.

**TABLE 5**
**2005 Level of Service Results**
**City Square Mitigation Analysis**

| Case | 2005 Approved Plan | | | | | | 2005 Proposed Plan | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | AM Peak Hour | | | PM Peak Hour | | | AM Peak Hour | | | PM Peak Hour | | |
| | LOS[1] | Delay (sec.) | V/C[4] | LOS[1] | Delay (sec.) | V/C[4] | LOS[1] | Delay (sec.) | V/C[4] | LOS[1] | Delay (sec.) | V/C[4] |
| Without Mitigation | F | 65.9 | 1.14 | F | 96.5 | 1.23 | F | 66.8 | 1.15 | F | > 100[2] | 1.31 |
| Mitigation | | | | | | | | | | | | |
| Add Chelsea Street Right Turn Lane[3] | -- | | | -- | | | E | 52.9 | 1.09 | F | 83.5 | 1.20 |

[1]LOS = Level of Service.

[2]Equations to calculate delay do not yield meaningful results when volume to capacity ratios exceed 1.20. Therefore, values exceeding 100 seconds are not shown.

[3]Right turn lane is added in the AM and PM peak period by restricting the proposed on-street parking between the hours of 7-9 AM and 4-6 PM.

[4]V/C = Volume to Capacity ratio.

## TABLE 6
## 1998 Level of Service Results
## Unsignalized Intersections

| | 1998 Approved Plan | | | | 1998 Proposed Plan | | | |
|---|---|---|---|---|---|---|---|---|
| | AM Peak Hour | | PM Peak Hour | | AM Peak Hour | | PM Peak Hour | |
| | LOS[1] | RC[2] | LOS[1] | RC[2] | LOS[1] | RC[2] | LOS[1] | RC[2] |
| Medford Street | | | | | | | | |
| Chelsea St., EB Left | A | 926 | A | 670 | A | 1124 | A | 538 |
| Medford St., SB | B | 305 | A | 562 | A | 496 | C | 261 |

[1]LOS = Level of Service

[2]RC = Reserve Capacity

[3]The signal at Gate #5 is removed under Proposed Plan conditions.

## TABLE 7
## 2005 Level of Service Results
## Unsignalized Intersections

| | 2005 Approved Plan | | | | 2005 Proposed Plan | | | |
|---|---|---|---|---|---|---|---|---|
| | AM Peak Hour | | PM Peak Hour | | AM Peak Hour | | PM Peak Hour | |
| | LOS[1] | RC[2] | LOS[1] | RC[2] | LOS[1] | RC[2] | LOS[1] | RC[2] |
| Medford Street | | | | | | | | |
| Chelsea St., EB Left | A | 925 | A | 659 | A | 1171 | A | 476 |
| Medford St., SB | B/C | 303 | C | 257 | B | 355 | D | 127 |

[1]LOS = Level of Service
[2]RC = Reserve Capacity
[3]The signal at Gate #5 is removed under Proposed Plan conditions.

*Topic:* *Trip Generation Rates*

**Comment:** An analysis of trip generation using unadjusted ITE rates for the appropriate land use codes is required for the FSEIR.

**Response:** Calibration

Included in MEPA's 1989 "Guidelines for EIR/EIS Traffic Impact Assessment" is a requirement that, whether or not trip generation rates are developed for the specific development analyzed, a comparison to unadjusted ITE trip generation rates should be included. Table 8 provides a comparative analysis of trip generation using both ITE rates and those specifically developed for the uses existing in the Navy Yard in 1989. As can be seen by the results, the ITE rates tend to significantly over-forecast actual observed daily vehicle traffic. This occurs because ITE rates are derived from studies of predominantly suburban developments where transit and walk trips are very low or non-existent. As a result, unadjusted ITE rates appear to have little application to travel forecasting for urban developments such as the Charlestown Navy Yard.

In addition, several of the ITE rates are based on limited sample sizes. The 5th edition (most recent) of the ITE Trip Generation Manual includes the following paragraph in the Preface:

> "A word of caution is in order here: In some cases, only limited data could be obtained for a land use, and thus the trip generation rates, plots, and equations may not be truly indicative of a particular land use. Because trip generation characteristics for a land use may vary, extreme care must be take in the use of the data. You may wish to modify or adjust the trip generation rates and equations presented in this report to reflect a site's location, public transportation service, ridesharing program, proximity to other developments that may reduce vehicle trip making through walking or combining trips, and special characteristics of the site or the surrounding area. You should collect local data for comparison when considering use of the data in this report."

**TABLE 8**
**ITE Auto Trip Generation Rate Calibration Results**
**April Weekday 1989, Charlestown Navy Yard**

| Land Use | April 1989 Square Footage[1] | ITE Daily Trip Rate[2] (per 1000 sf) | ITE Total Daily Trips |
|---|---|---|---|
| Rehab Office | 191,000 | 11.98 | 2,289 |
| Research | 450,000 | 7.46 | 3,359 |
| Retail | 17,400 | 83.39 | 1,451 |
| Residential | 805,400 | 5.48 | 4,410 |
| Marina (slip) | 350 | 3.06 | 1,073 |
| Construction Workers | 630 | NA[3] | 1,208[3] |
| TOTALS | | | 13,789 |
| National Park | | NA[3] | 801[3] |
| Calibration: | | | |
| Forecast Totals | | | 14,590 |
| Gate #4 and #5 Counts | | | 10,122 |
| Fit (Forecast/Count) | | | 144% |

[1]Except as noted.

[2]ITE trip generation uses regression equations; therefore, the rates shown are calculated from the estimates of total trips generated.

[3]Trip generation for these uses was calculated directly from forecasts of visitation and employment levels.

A discussion of ITE land use applicable to Navy Yard Redevelopment follows:

1. Residential Apartments

   ITE Code #223 - Mid rise apartments, which are those greater than two levels but less than nine levels. A total of nine studies was included, but no data on daily traffic volumes were included.

   ITE Code #232 - High rise apartments, which are over 10 levels. This rate was based on only four studies, only one of which included over 350 units.

   ITE Code #221 - Low rise apartments, which are one or two levels. This information was based on 26 studies, but only one consisted of over 500 units.

2. Marina

   ITE Code # 420 - This rate is based on eleven studies.

3. Rehab Office

   ITE Code #710 - General office buildings.

4. Research Office

   ITE Code #760 - Research and Development Center. This rate is based on 27 studies, only one of which is greater than 1 million square feet.

5. Retail - Convenience Stores and Restaurants

   ITE Code #852 - Convenience store open 15-16 hours. This information was based on only five studies.

   ITE Code #831 - Quality Restaurant, with data based on 12 studies.

6. National Park Visitors

   No appropriate ITE code is provided.

Based on the discussion in this section and the calibration presented in Table 8, the rates developed specifically for this project were determined to be a more appropriate used as a basis for forecasting future trips to the Navy Yard.

Year 1998 and 2005 Rates

Table 9 provides a comparative analysis of ITE trip rates and those specifically developed for the uses planned in the Navy Yard in the design years. As can be seen by the results, the ITE rates tend to be greater than actual rates experienced at the Navy Yard. This occurs because ITE rates are derived from studies of predominantly suburban developments where transit and walk trips are very low or non-existent. As a result, unadjusted ITE rates appear to have little application to travel forecasting for urban developments such as the Charlestown Navy Yard.

Note that the ITE rates presented for 1998 vary slightly from those shown for 2005. ITE forecasts are developed from regression equations, so the actual rate of trips generated per 1,000 square feet will depend on the level of development.

Several land uses not currently developed in the Navy Yard, but included in either the Approved or Proposed Plan, are introduced in this section. The additional land uses include YMCA Housing, Suites Hotel, Cultural/ Recreational, and the Aquarium.

**Comment #23**

***Topic:*** *Medford Street/Terminal Street Corridor Safety Issues*

**Comment:** The FSEIR should address comments received regarding safety issues associated with mixing tourist traffic and heavy trucks along the Medford Street/Terminal Street corridor.

**Response:** A field reconnaissance was conducted on Chelsea Street between Terminal Street and the proposed location of Gate 6 to assess vehicular operation and pedestrian flow related to the overflow parking lot on Terminal Street. Findings and potential treatments are described below.

Vehicular Safety

Sight distances on this section of Chelsea Street are generally adequate. The one exception is on the Terminal Street approach to Chelsea Street, looking right, or west, across the bridge. Here, the constraint is not related to grade or geometrics, but to the design of the railing on the north side of the bridge. The vertical posts are closely spaced and, from the sight line of the Terminal Street approach, obscures the view of approaching vehicles. The tree buffer at the edge of the Little Mystic Channel also limits view of

**TABLE 9**
**Comparison of DSEIR and ITE 1998 and 2005 Daily Vehicle Trip Generation Routes[1]**

| Land Use | DSEIR Rates 1998 and 2005 | ITE Trips | |
|---|---|---|---|
| | Total Daily Auto Trip Rate/1000sf[2] | 1998[6] ITE Rate/1000sf[2] | 2005[6] ITE Rate/1000sf[2] |
| Office | 4.91 | 16.35 | 16.10 |
| Research | 1.87 | 5.95 | 5.51 |
| Retail | 11.23 | 82.32 | 81.94 |
| Residential (per unit) | 3.45 | 5.29 | 5.19 |
| Marina (per slip) | 1.20 | 2.64 | 2.64 |
| O.F.P.A.[3] | NA[3] | NA | NA |
| Cultural/Recreation | 1.23 | NA[4] | NA[4] |
| YMCA Housing (per unit) | 2.28 | NA[4] | NA[4] |
| Suites Hotel (per suite) | 4.56 | NA[4] | NA[4] |
| Aquarium | NA[5] | NA[4] | NA[4] |
| NPS Visitors | NA[5] | NA[4] | NA[4] |

[1]Rates are for average August weekday in the appropriate design year for the Charlestown Navy Yard Proposed Plan.

[2]Except as noted.

[3]Other Facilities of Public Accommodation will not generate any external vehicle trips to/from the Charlestown Navy Yard.

[4]No ITE Rates available for these uses.

[5]Trip generation for these uses was calculated directly from forecasts of visitation and employment levels.

[6]Since ITE rates are based on regression equations dependent on square footage, different development sizes result in different trip rates.

oncoming traffic. While this limited vision poses no problem for Terminal Street traffic turning right, passenger cars turning left must ease into the intersection to achieve adequate sight distance. The intersection is wide open due to large turning radii and a lack of traffic medians or islands.

A stop sign is currently provided at the Moran Container Terminal exit. It is located on the curb radius and is probably only noticeable to vehicles turning right.

Stop sign control should be provided on Terminal Street. The stop sign at the Moran Terminal exit should be relocated, and a stop line should be prominently painted to provide further definition of the intended control. Cutting back the first four or five trees in the buffer zone would improve visibility for vehicles approaching along Terminal Street. These recommendations are probably sufficient at this stage. Independent of the Navy Yard Redevelopment, however, consideration should be given to a redesign of the intersection to better channelize and define traffic movements. The redesign would require additional studies and would have to be coordinated with the design and operation of the Little Mystic parking area access points.

Pedestrian Safety

Currently, a sidewalk is provided on the south side of the Little Mystic (Chelsea Street) bridge. Pedestrian movements from the Little Mystic overflow parking lot to the Navy Yard would be improved by relocating the existing sidewalk to the north side of the bridge, and extending it up to the new Gate 6. Pedestrians would be guided by a foot patrol or safety/ crossing guard to cross Chelsea Street at the signalized intersection at the new Gate 6, and would be discouraged from any crossings along the bridge by existing bridge structure, or at the Terminal Street intersection by signage and the design of the stair and ramp. The existing bridge rail would serve both as a protective barrier from bridge traffic and preclude pedestrian use of the roadway. Additional lighting would be provided at the intersection and walkway as required.

Removal of the existing south side sidewalk could provide a defined stacking lane for trucks waiting to enter the Moran Terminal in the morning, and the new sidewalk could be cantilevered over the channel on the north side of the existing bridge structure.

Detailed design decisions would be coordinated with potential intersection design at Chelsea and Terminal Streets.

For additional information, see response to Comment #1 of Massport letter (Letter 11).

**Comment #24**

*Topic:* *Gate 6*

**Comment:** The creation of Gate 6 with pedestrian crossings needs more detailed attention for safety and traffic flow.

**Response:** A field reconnaissance was conducted on Chelsea Street between Terminal Street and the proposed location of Gate 6 to assess vehicular operation and pedestrian flow related to the overflow parking lot on Terminal Street. Findings and potential treatments are described in the response to the preceding Comment #23 of Letter 1, the DSEIR Certificate.

**Comment #25**

*Topic:* *Little Mystic Channel Bridge*

**Comment:** Specific improvements required for the bridge over the Little Mystic Channel should be described.

**Response:** A field reconnaissance was conducted on Chelsea Street between Terminal Street and the proposed location of Gate 6 to assess vehicular operation and pedestrian flow related to the overflow parking lot on Terminal Street, including the Little Mystic Channel bridge. Findings and potential treatments are described in the preceding response to Comment #23 of Letter 1, the DSEIR Certificate.

**Comment #26**

*Topic:* *Medford Street Bypass*

**Comment:** The FSEIR should provide information regarding the proposed use (truck/bus or general traffic) of the Medford Street Bypass and the existing railroad tracks within the route and an analysis of potential impacts to water-dependent industrial uses.

**Response:** The maximum utilization of the Bypass by trucks, buses, and other heavy vehicles has been one of the stated principal objectives of the project since the first planning meeting was convened in January, 1990, which was attended by senior executives of EOTC, MDPW, EOEA, and other state agencies, together with representatives of the BRA, the Charlestown Neighborhood Council, and other interested parties. The preferred alignment of the Bypass, Scheme B-4.4, received preliminary approval in November, 1990 from the Charlestown Neighborhood Council and from the BRA Board of Directors.

The existing railroad tracks, which currently are underutilized, will remain in place except for a segment of approximately 1,800 feet in length which will be removed and replaced with new track in order to accommodate the preferred alignment of the proposed roadway. The Boston office of Seelye

Stevenson Value and Knecht, engineering consultants with extensive experience in rail improvements, has provided expertise to the BRA and to the BRA's transportation consultant, Bruce Campbell & Associates (BC&A), in reviewing existing conditions and preparing preliminary plans for the new track.

The potential impacts to water-dependent industrial uses are positive in that existing access/egress driveways will be repaired or replaced as necessary, and the Bypass will provide an enhanced roadway for trucks and other heavy vehicles traveling to/from the industrial sites of concern, which are located in a Commonwealth of Massachusetts Designated Port Area (DPA) and in a Maritime Economy Reserve (MER) zone of the City of Boston. Recognition of the extensive positive impacts to the water-dependent industrial uses is evidenced by the breadth and depth of public support which the proposed roadway has received to date from abutters, agencies, and other interested parties.

The Medford Street Bypass project is distinct from the Charlestown Navy Yard Redevelopment project from the MEPA standpoint. Accordingly, any further detailed analysis of potential impacts of the Bypass on water-dependent industrial uses would be accomplished in the context of its own detailed review.

**Comment #27**

***Topic:*** *Traffic Mitigation*

**Comment:** More details on traffic mitigation plans are required in the FSEIR, including discouragement of through traffic in dense areas of Charlestown.

**Response:** The distribution of Navy Yard trips through Charlestown Streets is summarized in Table 10. Approximately thirty percent (30%) of Navy Yard trips not related to the Aquarium and National Park would travel through Charlestown, with the remaining 70% passing through City Square.

Of the thirty percent, this destined for I-93 North would use the Medford Street corridor (8%) and trips destined for Routes 99 and 28/Gilmore Bridge would travel on the Medford Street corridor (3%) and the Warren Street corridor (4%).

One half of the 30% would have local destinations within Charlestown, and would use the Medford Street corridor (4%) and the Warren Street/Main Street corridor (11%).

Eighty-five percent of visitors to the Aquarium and National Park would pass through City Square. The remaining 15% would use the Medford Street corridor (10%) and the Warren Street/Main Street corridor (5%). Five percent of these would have originations within Charlestown.

This basic distribution of trips illustrates the fact that Aquarium and National Park visitor trips show a much more regional emphasis, with some 85% of trips assigned to City Square, and only 5% having local (Charlestown) originations. The general Navy Yard trips reflect a greater emphasis on local (Charlestown) originations (15%), mainly as a result of employment and local business interaction. More through trips are also assigned to local streets as a result of driver familiarity with the local network.

Table 11 shows the detailed assignment of peak hour trips to local streets for both the Approved Plan and the Proposed Plan in 1998 and 2005. The resultant assignments to each roadway or corridor are shown for both local and through trips. It can be seen that the total number of peak hour trips assigned to local streets is less under the Proposed Plan than the Approved Plan in 1998, and is only marginally greater in the PM peak under 2005 conditions. The increase under this condition is limited to some 14 trips, which is approximately one trip every 4 minutes. Under 1998 conditions, total trips assigned to local streets would actually decrease by about 56 in the AM peak and 33 in the PM peak.

As shown in Table 11, the pattern on individual streets or corridors reflects this overall pattern, although clearly there are variations from street to street as a result of the specific combinations of local and through trips. Local trips should not be of concern in terms of traffic impact, as they are generated within the Charlestown community, but ultimately it is the net increase on any individual roadway which must be considered.

Under 1998 conditions, the Proposed Plan would result in less peak hour trips on both Medford Street (38 in AM, 17 in PM) and the Warren

**TABLE 10**
**Distribution of Navy Yard Trips Through Charlestown Streets**
**1998 and 2005, Approved Plan and Proposed Plan Conditions**

**Navy Yard Trips, Excluding Aquarium and National Park Visitors**

| | Peak Hour Street Assignment | |
|---|---|---|
| Corridor | Street | Percent of Trips |
| I-93 (North) | Medford Street Corridor | 8% |
| Routes 99 and 28/Gilmore Bridge | Medford Street Corridor | 3% |
| | Warren Street Corridor | 4% |
| Local Destinations (Charlestown) | Medford Street Corridor | 4% |
| | Warren Street/Main Street Corridor | 11% |
| TOTAL | | 30% |

**Aquarium and National Park Visitor Trips**

| | Peak Hour Street Assignment | |
|---|---|---|
| | Street | Percent of Trips |
| Charlestown 5%, Other 10% | Medford Street Corridor | 10% |
| | Warren Street/Main Street Corridor | 5% |
| TOTAL | | 15% |

**TABLE 11**
**Assignment of Navy Yard Trips to Local Streets**
**1998 and 2005, Approved Plan and Proposed Plan Conditions**

| | | Warren Street/Main Street | | | Vine Street/ Bunker Hill Street | | | Medford Street | | | Total Local Streets | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Local | Through | Total | Local | Through | Total | Local | Through | Total | Local | Through | Total |
| 1998 Approved Plan | AM | 142 | 51 | 193 | 12 | 32 | 44 | 39 | 110 | 149 | 193 | 193 | 386 |
| | PM | 171 | 61 | 232 | 15 | 40 | 55 | 46 | 131 | 177 | 232 | 232 | 464 |
| 1998 Proposed Plan | AM | 121 | 44 | 165 | 17 | 37 | 54 | 27 | 84 | 111 | 165 | 165 | 330 |
| | PM | 138 | 64 | 202 | 15 | 41 | 56 | 43<br>4* | 117<br>9* | 160<br>13* | 200 | 231 | 431 |
| 2005 Approved Plan | AM | 142 | 51 | 193 | 12 | 32 | 44 | 39 | 110 | 149 | 193 | 193 | 386 |
| | PM | 175 | 64 | 239 | 16 | 44 | 60 | 48 | 131 | 179 | 239 | 239 | 478 |
| 2005 Proposed Plan | AM | 142 | 51 | 193 | 15 | 41 | 56 | 36 | 101 | 137 | 193 | 193 | 386 |
| | PM | 159 | 72 | 231 | 15 | 45 | 60 | 52<br>5* | 133<br>11* | 185<br>16* | 231 | 261 | 492 |

*10% of trips from overflow parking lot assigned to Terminal Street north.

NOTE: 1. Local trips have destinations in Charlestown; through trips have destinations beyond.
2. Trip numbers are totals of inbound and outbound trips.

Street/Main Street corridor (28 in AM, 30 in PM), and a slight increase on Vine Street/Bunker Hill Street (10 in AM, 1 in PM). The maximum increase in through trips is 5 trips on Vine Street/Bunker Hill Street in the AM peak, which would have no noticeable impact. Under 2005 conditions, the Proposed Plan would result in the same or less trips on all of the local streets, with the exception of an increase of 12 trips on Vine Street/Bunker Hill Street in the AM peak, and an increase of 6 trips on Medford Street in the PM peak.

Overall, the impact of the Proposed Plan on local streets in Charlestown is not significant, and in many cases represents a slight reduction compared to the Approved Plan. This is mainly as a result of the fact that the introduction of the Aquarium to the Proposed Plan significantly increases the regional bias of the trip distributions, attracting a greater proportion of trips through City Square to the strategic roadway network, rather than through local streets. In any event, the most important route for through traffic to destinations beyond Charlestown is Medford Street, and the use of this street as an arterial is consistent with its current function.

In light of the above elaboration of traffic impacts on local streets, it is clear that the requested mitigation plans to discourage through traffic in dense areas of Charlestown are not warranted by the Proposed Plan.

**Comment #28**

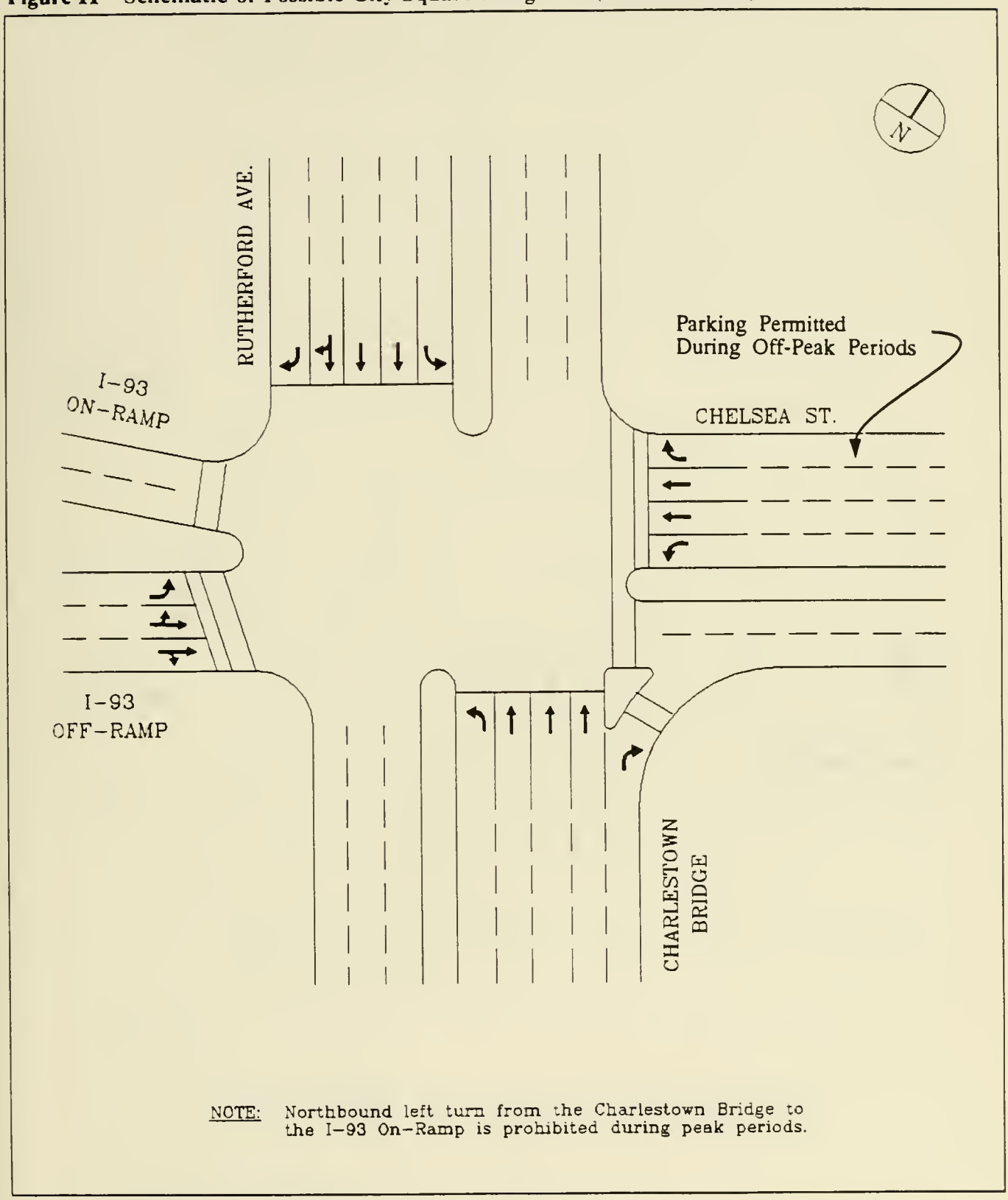
***Topic:*** *City Square*

**Comment:** The proponent's proposed mitigation roadway geometry changes in City Square should be compared with earlier work done for the City of Boston. Additional attempts should be made at developing other alternatives or additional mitigation.

**Response:** The mitigation identified is to remove the proposed on-street parking lane along the south side of Chelsea Street and, in its place, add an additional peak period right turn lane on the westbound Chelsea Street approach, as shown in Figures 11 and 12. While the overall curb-to-curb width of the street is not proposed to be altered, an additional travel lane on the north side of Chelsea Street would be accommodated for right turns at peak hours. The result would be an increase from 16 travel lanes, proposed by CANA, to 17 travel lanes; however, the added lane would not replace additional right-of-way. Except during the afternoon peak period, on-street parking could be permitted in this new lane.

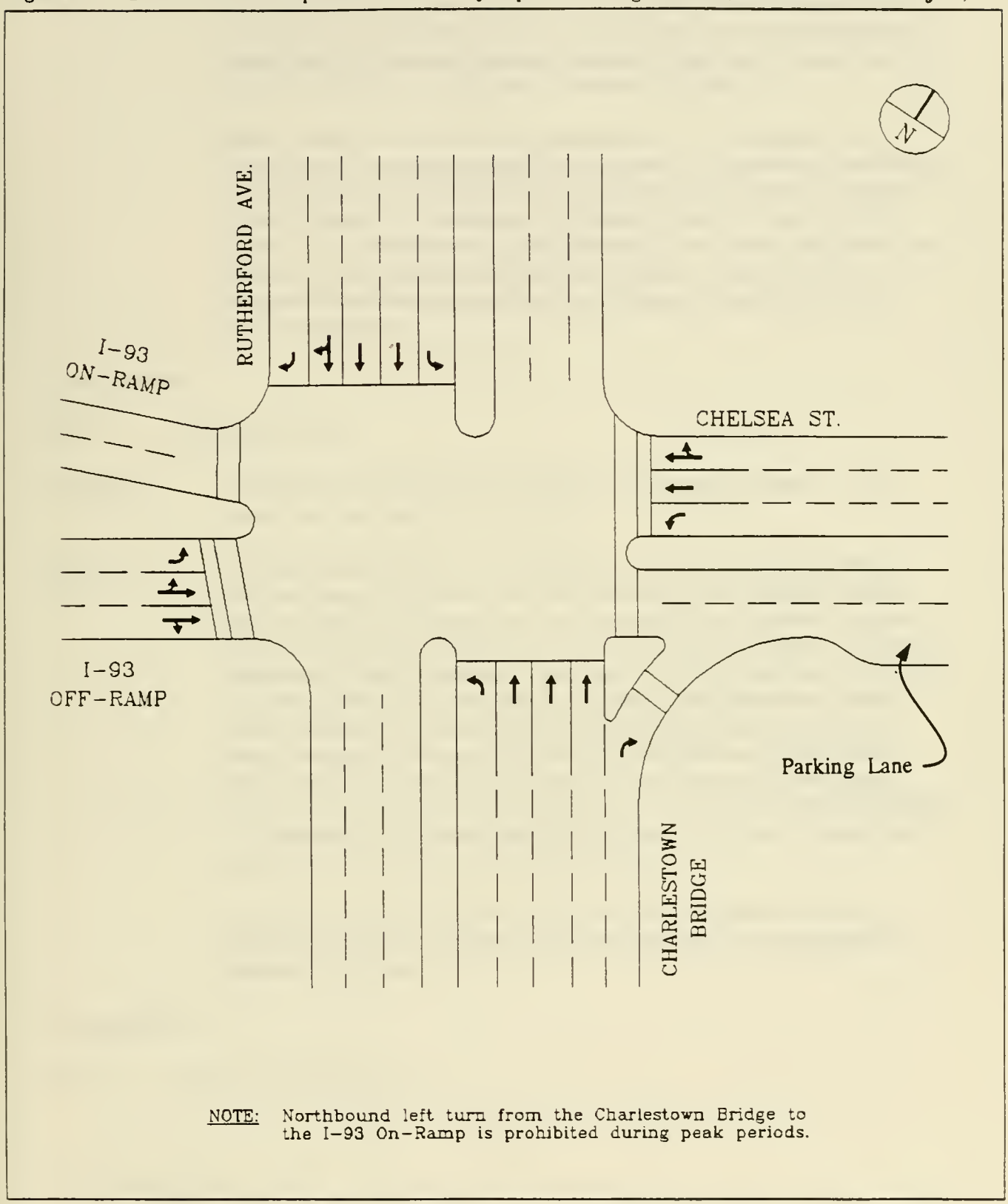
Previous studies of the CANA design for the City Square intersection, undertaken for the Boston Transportation Department, have identified additional design modifications capable of further improving the operation

**Figure 11** Schematic of Possible City Square Mitigation (1998 and 2005)




NOTE: Northbound left turn from the Charlestown Bridge to the I-93 On-Ramp is prohibited during peak periods.

**Figure 12** Schematic of Proposed Future City Square Configuration (Source: CA/T Project)




NOTE: Northbound left turn from the Charlestown Bridge to the I-93 On-Ramp is prohibited during peak periods.

of this intersection.[1] These changes include an additional left turn lane on the Chelsea Street, Rutherford Avenue, and Charlestown Bridge approaches. That design also included sheltered free right turn lanes on the Rutherford Avenue and I-93 off-ramp passenger approaches that are no longer included in the CANA design. This plan is illustrated in Figure 13.

Further analysis of these or other improvements to City Square was concluded to be premature given the uncertainty of conclusions forthcoming from the State's own studies of alternatives for the I-93/Route 1/Storrow Drive ("Scheme Z") interchange, the Traverse Street on-ramp, and City Square. The Boston Redevelopment Authority is an active participant with the State in these studies and is striving to achieve solutions that are acceptable from transportation function, community benefit, and urban design perspectives.

**Comment #29**

***Topic:*** *City Square Traffic*

**Comment:** The FSEIR should determine whether the percentage of traffic in City Square from the south is 44% or 90%.

**Response:** Trip distribution developed for this project indicates that approximately forty-four percent of Navy Yard traffic would pass through City Square from the south. This figure has been compared in the comment to ninety percent, as developed for the CA/T project. There are, however, two major differences in the distributions. First, the Navy Yard distribution refers to site-related traffic only, while the CA/T distribution includes all traffic. Second, the Navy Yard distribution includes all site-related traffic that passes through City Square, while the CA/T distribution includes only traffic that passes through City Square via the "Scheme Z" interchange. Therefore, while only ten percent of the CA/T distribution through "Scheme Z" approaches City Square from the north, there is a greater volume that approaches City Square on the local street system.

In summary, there is no direct comparison possible between the two percentage numbers mentioned in the comment since they are describing different sets of data.

**Comment #30**

***Topic:*** *Pier 11 Water Shuttle Dock*

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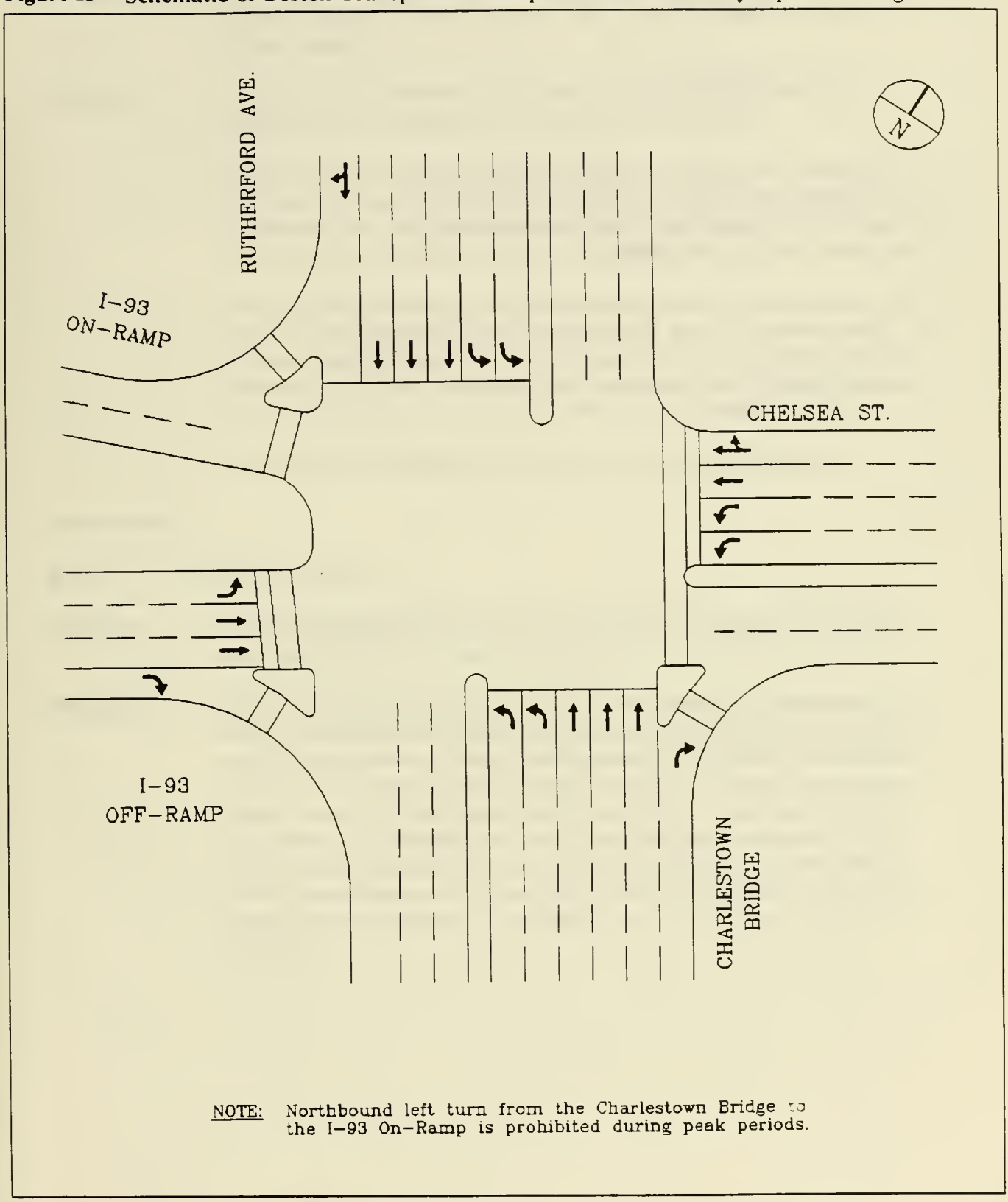
[1] "Central Artery North Area Local Intersection Analysis," City of Boston Transportation Department, Vanasse Hangen Brustlin, Inc., November 1987.

**Figure 13** Schematic of Boston Transportation Department Future City Square Configuration




NOTE: Northbound left turn from the Charlestown Bridge to the I-93 On-Ramp is prohibited during peak periods.

**Comment:** The FSEIR should discuss the location of a water shuttle dock at Pier 10 vs. Pier 11, and should indicate how Pier 11 will be made available for visiting vessels.

**Response:** See response to Comment #12, Letter 1, the DSEIR Certificate for discussion of water shuttle dock location at Yard's End.

Requirements that the New England Aquarium manage and maintain the multi-purpose Pier 11 for its own use and for larger visiting vessels will be incorporated into the pier management plan. See response to Comment #9 of Letter 1, the DSEIR Certificate, for additional description of such plan.

The infrequent berthing of deep draft vessels could be given priority with sufficient advance notice of date and duration. Fees for docking would be commensurate with other deep draft locations such as the Boston Marine Industrial Park. Site management and rates would be subject to on-going review and guidance in accordance with the vessel-related use plan.

See response to Comment #30 of Letter 1, the DSEIR Certificate.

**Comment #31**

***Topic:*** *Pier 4 Water Shuttle*

**Comment:** The proponent should explain how Pier 4 will be modified to handle the increasing demand for water shuttle service.

**Response:** Future water shuttle service to the Navy Yard needs to be considered in terms of the proposed terminals at Pier 4 and Pier 10/11, and with respect to the proposed routes. Design requirements for the middle-sized vessel docks for the terminals are described in *Prototype Docking Standards for Boston Harbor* (Childs Engineering Corp., 1988). Handicapped access requirements for Massachusetts are not yet published in response to the recent federal legislation, the American Disabilities Act, but are likely to call for ramps similar to the new Navy Yard Pier 4 system for the Boston Harbor, with ramp slopes not exceeding 1 in 12 for all normal tide conditions.

The specific terminal docks will be required to provide for several phases of expansion based on increased demand. Based on berthing requirements described in *The Boston Inner Harbor Water Transportation Study*, (TAMS Consultants, Inc., and Charles Norris, 1989), Pier 4 and Pier 10/11 terminals will need to provide similar facilities by the time the Navy Yard redevelopment is complete. While the current Pier 4 float dock at 120 feet in length has excess capacity for the existing demand levels for the Long Wharf service, additional frontage will be reserved to enable dock expansion to 240 feet if required when new routes are added. Expansion capabilities will also be incorporated into the water shuttle docking facilities planned for Pier 10/11.

The Pier 4 and Pier 10/11 terminals are planned to accommodate routes described in the *Boston Inner Harbor Water Transportation Study* with some modifications responding to the Yard's End redevelopment plans which have evolved since the study was completed in 1989. For design year 1995, peak service demand forecasts will justify two routes from Pier 4: an extension of the present Long Wharf service to Russia Wharf, (South Station), and a new route to North Station. The present terminal would accommodate these services.

Pier 10/11 would serve a route connecting to Long or Central Wharf and Russia Wharf at peak periods and to Long/Central for Aquarium users during off-peak periods. The Aquarium would provide additional shuttle dock space at such time as the visitor demand warranted. While the demand projections and time frames for route start-up in the study were based on best available data regarding the Central Artery/Third Harbor Tunnel Project (CA/THT) related impacts, updates on the ferry model will be necessary as CA/THT construction schedule and impact mitigation becomes more final.

The responsibility for implementation of the Pier 4 terminal expansion and the Pier 10/11 construction will be coordinated by the BRA in cooperation with adjacent parcel developers whose projects will be served by these facilities. Specific funding programs cannot be finalized until the parcel redevelopment is further advanced and until the harbor-wide CA/THT impact mitigation plans, including water transit, can be taken into consideration. It is assumed that vessel service operations from Pier 4 will continue under MBTA operation. New services from Pier 10/11 will be finalized with adjacent parcel management and user groups when demand patterns can better be determined.

**Comment #32**

***Topic:*** *Pedestrian Circulation*

**Comment:** The FSEIR should provide information on the distribution of pedestrian trips on the major corridors within and at the periphery of the CNY.

**Response:** As a supplement to information provided in the DSEIR, pedestrian level of service criteria for walkways are presented in Table 12, and the estimated capacity of existing sidewalks along major pedestrian routes within the Navy Yard is summarized in Table 13. For each major corridor, a range for the narrowest and widest points is presented.

The capacities indicated in Table 13 exceed the peak hour demands of the possible buildout by substantial margins.

**Comment #33**

***Topic:*** *Pedestrian Access to the Waterfront*

**Comment:** The FSEIR should indicate how pedestrians will get from Charlestown to the waterfront.

**Response:** Between Gate 4 and Constitution Road, the CANA design for Chelsea Street includes two travel lanes in each direction within a 46-foot width. Between Constitution Road and Warren Street, an 8-foot parking lane will be added. About 200 feet further towards City Square, the Chelsea Street width will flare to provide for a median and a left turn lane to Warren Street. Between Constitution Road and Warren Street, roadway width will vary from approximately 54 feet to 72 feet. Entering City Square, the width will vary from 73 feet to 63 feet, providing three approach lanes.

Pedestrian crossings of Chelsea Street, which consist of crosswalks and pedestrian phasing at signalized intersections, will be provided at four locations within the 2,200 foot roadway section between Gate 4 (Fifth Street) and City Square. The locations include: the Gate 4 intersection, north of Fifth Street; then approximately 800 feet south to the Constitution Road intersection, across Chelsea Street approaches; approximately 800 feet further south to the Warren Street intersection, with crossings provided on both sides; and, approximately another 600 feet away to City Square, where crosswalks will be provided across Chelsea Street and across the on- and off-ramps to I-93. The location of these sidewalks is illustrated in the accompanying Figure 14.

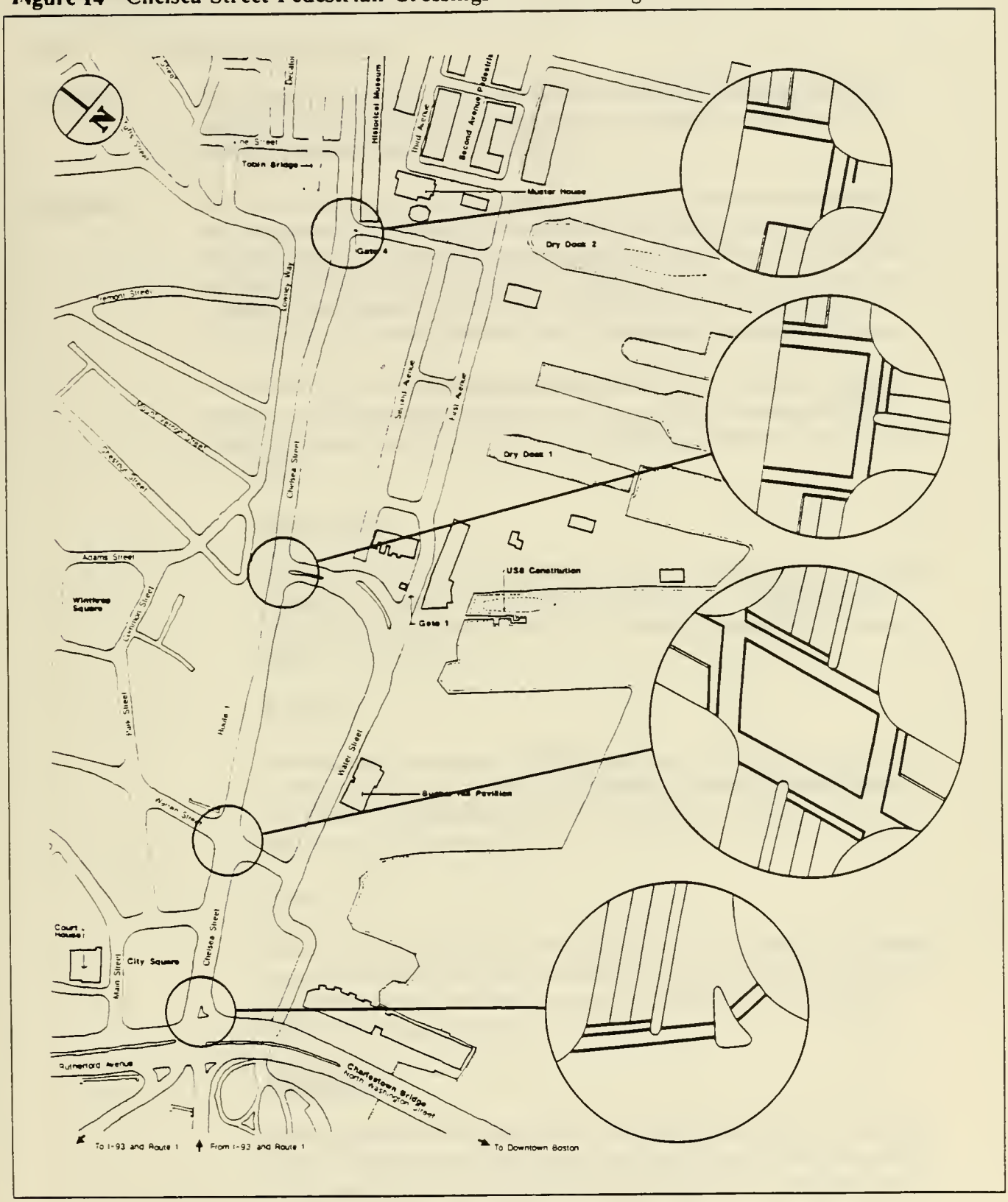
**TABLE 12**
**Pedestrian Level of Service Criteria on Walkways**

| Level of Service | Expected Flows | |
|---|---|---|
| | Flow Rate, $v$ (Ped/Min/Ft) | Vol/Cap Ratio, $v/c$ |
| A | ≤ 2 | ≤ 0.08 |
| B | ≤ 7 | ≤ 0.28 |
| C | ≤ 10 | ≤ 0.40 |
| D | ≤ 15 | ≤ 0.60 |
| E | ≤ 25 | ≤ 1.00 |
| F | -- Variable -- | |

**TABLE 13**
**Existing Navy Yard Sidewalk Capacity**

| | Low Capacity | | High Capacity | |
|---|---|---|---|---|
| Street | Width | Peds/Hour | Width | Peds/Hour |
| First Avenue | 3' | 2,700 | 16' | 14,400 |
| Second Avenue | Pedestrian Way | | | |
| Third Avenue | 4½' | 4,050 | 8'-2" | 7,350 |
| Fourth Avenue | 3'-3" | 2,925 | 7' | 6,300 |
| Fifth Street | 3'-1" | 2,775 | 13'-2" | 11,850 |
| Sixth Street | 8'-7" | 7,725 | 31'-4" | 28,200 |
| Seventh Street | 9'-1" | 8,175 | 9'-10" | 8,850 |
| Eighth Street | 5'-2" | 4,650 | 18'-3" | 16,425 |
| Ninth Street | 3'-10" | 3,450 | 16'-5" | 14,775 |
| Thirteenth Street | 3"-6" | 3,150 | 9'-2" | 8,250 |
| Sixteenth Street | 2'-6" | 2,250 | 7'-5" | 6,675 |

**Figure 14** Chelsea Street Pedestrian Crossings - CANA Design



**Comment #34**

***Topic:*** *Parking Generation Rates*

**Comment:** The proponent should provide more details regarding estimated parking generation rates for the CNY development and should include the ITE parking generation rates for comparison.

**Response:** The DSEIR Existing Conditions section provides a detailed discussion of the derivation of the parking demand rates, which were calculated based on the trip generation rates and checked against an actual survey of observed parking in the Navy Yard in 1990. The fact that the derived parking rates provided a very good fit to actual observed parking accumulation in the Yard provides additional validation of the calculated trip generation rates.

The following provides the detailed calculation of peak weekday parking demand rates for the uses existing in the Navy Yard in January of 1990 based on the calibrated trip generation parameters contained in Table 13 of the DSEIR:

Rehab Office

Peak parking demand per 1,000 square feet = 4 employees per 1,000 square feet of space x 0.77 (percent by auto) / 1.1 (employees per auto) x 0.90 (attendance factor) + 0.2 (visitor demand) = 2.71 spaces per 1,000 square feet.

Research

Peak parking demand per 1,000 square feet = 2.2 employees per 1,000 square feet of space x 0.53(percent by auto) / 1.1(employees per auto) x 0.90(attendance factor) + 0.1(visitor demand) = 1.05 spaces per 1,000 square feet.

Retail

Peak parking demand per 1,000 square feet = 2.0 spaces. (This was based on the rate observed for similar uses at the World Trade Center at Commonwealth Pier and reported in the DEIR and FEIR for the WTCB expansion project.)

Residential

Parking demand was assumed to peak when the majority of resident's autos are in the Navy Yard during the late evening. With an average auto ownership of 1.24 vehicles per unit, the use of a demand rate of 1.24 spaces per unit should account for any residents who may be

away from home, as well as for the presence of visitor autos, on a typical weekday evening.

Marina

Since the marina generates little activity in the winter months, a figure of 0.1 spaces per boat slip was used.

Construction Workers

Parking demand per construction worker = 1 worker x 0.75(percent by auto) / 2.0(workers per auto) x 0.65(attendance factor) = 0.24 spaces per worker.

National Park Service

In January of 1990 it was estimated that neither National Park Service employees or visitors parked within the Master Plan area of the Charlestown Navy Yard on a typical weekday.

Changes in the parking demand rates for the existing uses were modified to produce design year 1998 and 2005 demand rates based on the walk percentages, percent auto use, and average vehicle occupancy (AVO) shown in Table 30 of the DSEIR. In the case of residential parking demand, the rate was held at 1.24 spaces per unit since no information was available indicating that a change in auto ownership rates among Navy Yard residents would occur. In addition, a number of new uses are proposed in the Yard for both 1998 and 2005. The calculation of demand rates for these uses were as follows:

YMCA Housing

A specific peak demand of 50 spaces for this facility was estimated based on discussions with the proponent of this project that less than one-third of the users would have autos. The majority would be military personnel staying in Boston without an automobile.

Suites Hotel

With no data available for a similar facility in the Boston core area, a peak evening demand rate of 1.0 spaces per suite was used. This is higher than most rates reported for typical Downtown Boston hotels.

Marina

The ITE rate for summer weekday demand of 0.26 spaces per boat slip was used, since no other data were available upon which to calculate a rate.

Aquarium Visitors

Parking space demand per visitor = 1.0 accumulated visitors x 0.73(percent by auto) / 2.5(average number of visitors per car) = 0.29 spaces per accumulated visitor.

Aquarium Employees

Parking space demand per employee = 1.0 employees x 0.55(percent by auto) / 1.2(employees per auto) = 0.46 spaces per employee.

National Park Visitors

Parking space demand per visitor = 1.0 accumulated visitors x 0.38(percent by auto) / 2.5(average number of visitors per car) = 0.15 spaces per accumulated visitor.

Cultural and Recreation Visitors

Parking space demand per visitor = 1.0 accumulated visitors x 0.07(percent by auto) / 2.5(average number of visitors per car) = 0.03 spaces per accumulated visitor.

Cultural and Recreation Employees

Parking space demand per employee = 1.0 employees x 0.67(percent by auto) / 1.2(average number of visitors per car) = 0.56 spaces per employee.

Tables 14 and 15 contain the parking demand rates reported by the Institute of Transportation Engineers (ITE) publication, *Parking Generation* (2nd Edition, 1987), for the various land uses in the Navy Yard at the time of the field surveys in 1990 and for the uses in the Proposed Plan. A word of caution, also noted in the text, is that ITE parking demand rates are derived from national averages taken from a sample of predominantly suburban uses. Thus, they do not reflect parking demand rates typically found in the core areas of large Northeastern US cities such as Boston, where many trips are made by walking and transit.

Table 14 presents a comparison of parking generation during a January, 1990, weekday using ITE rates versus observed accumulation at the Navy Yard. From this table it can be seen that "forecast" parking generation using ITE rates would total 1,986, which is 23 percent higher than actual observed parking accumulation of 1,621. Due to the data limitations discussed above, and the calibration results presented in Table 14, parking rates developed specifically for this project and presented in the DSEIR were determined to be a more appropriate basis for forecasting parking demand.

**TABLE 14**
**Average Weekday Parking Demand - January Weekday 1990**
**Charlestown Navy Yard**
**Comparison of ITE Parking Generation to Observed Accumulation**

| Land Use | Square Footage | ITE Parking Demand Rate (spaces/1000sf)[1] | Peak Parking Demand (spaces) | Demand at Peak Accumulation (1:00 PM - 2:00 PM) |
|---|---|---|---|---|
| Office | 191,000 | 2.42 | 463 | 449 |
| Research | 450,000 | 1.75 | 788 | 764 |
| Retail | 37,400 | 6.67 | 249 | 242 |
| Residential (per unit) | 708 | 1.02 | 720 | 349 |
| Marina (per slip) | 350 | 0.26 | 91 | 32 |
| Construction Workers[2] | NA | NA | 150 | 150 |
| | Forecast Peak Vehicle Accumulation | | | 1,986 |
| | Observed Vehicle Accumulation (1/31/90) | | | 1,621 |

[1]Except as noted.

[2]Trip generation for these uses was calculated directly from forecasts of visitation and employment levels.

**TABLE 15**
**Comparison of DSEIR and ITE Parking Demand Rates[1&2]**
**Year 1998 and 2005**

| | DSEIR Rates | ITE Trips | |
|---|---|---|---|
| Land Use | Parking Demand Rates/1000sf[2] | 1998[6] ITE Rate/1000sf[2] | 2005[6] ITE Rate/1000sf[2] |
| Office | 2.12 | 2.65 | 2.64 |
| Research | 0.80 | 1.75 | 1.75 |
| Retail | 1.15 | 7.01 | 7.37 |
| Residential (per unit) | 1.24 | 1.03 | 1.03 |
| Marina (per slip) | 0.26 | 0.26 | 0.26 |
| Cultural/Recreation | 0.22 | NA[4] | NA[4] |
| Aquarium | NA[5] | NA[4] | NA[4] |
| NPS Visitors | NA[5] | NA[4] | NA[4] |
| YMCA Housing (per unit) | 0.39 | NA[4] | NA[4] |
| Suites Hotel (per suite) | 1.00 | NA[4] | NA[4] |

[1]Rates are for peak demand of individual uses for the Charlestown Navy Yard Proposed Plan during an average summer weekday. Since the peak demand of individual uses do not coincide, the resulting numbers do not represent peak accumulations.

[2]Spaces contained in the Other Facilities of Public Accommodation (OFPA) will not generate parking demand.

[3]Except as noted.

[4]No ITE Rates available for these times.

[5]Parking demand calculated directly from these estimates of peak visitor and employee accumulations, except for NPS which was based on visitor demand.

[6]Since ITE rates are based on regression equations dependent on square footage, different development sizes result in varied trip rates on a per 1,000 square foot basis.

**Comment #35**

***Topic:*** *Location of Parking*

**Comment:** More information should be provided on the location and operation of parking within the CNY.

**Response:** Tables 4 and 5 in the DSEIR describe, parcel by parcel, the proposed public parking facilities in the Charlestown Navy Yard. These facilities are not planned to be single-user facilities, but rather are meant to be shared by various users. For the convenience of the reader, the proposed public parking facilities are restated here in the accompanying Figure 15.

One of the first tasks of the proposed Transportation Management Association ("TMA") will be to commence an ongoing evaluation of the utilization of all existing parking facilities. These evaluations will assist in the detailed planning and timing of development of additional public parking facilities. It is important to note that the existing large surplus of parking spaces at Building #199 -- which, according to the operator, typically exceeds more than 600 parking spaces on weekdays -- must be fully utilized before the development of any additional parking spaces can be justified economically.

**Comment #36**

***Topic:*** *Overflow Parking Area*

**Comment:** The FSEIR should analyze the parking demand impacts of maintaining the launching ramp on the Little Mystic Channel for small boat usage on the overflow parking area.

**Response:** The impacts of the Little Mystic overflow parking lot on the use of the launching ramp should be minimal because of complementary use patterns. Peak lot demand by the Aquarium, as stated in the DSEIR, page 135, indicates that peak bus usage would likely occur in the spring and fall seasons, on weekdays, by educational groups. The auto parking overflow would occur predominantly during summer weekdays. Boat launch ramp use will be predominantly on summer weekends, which can easily be accommodated by the portion of the lot currently being used by the ramp launch users.

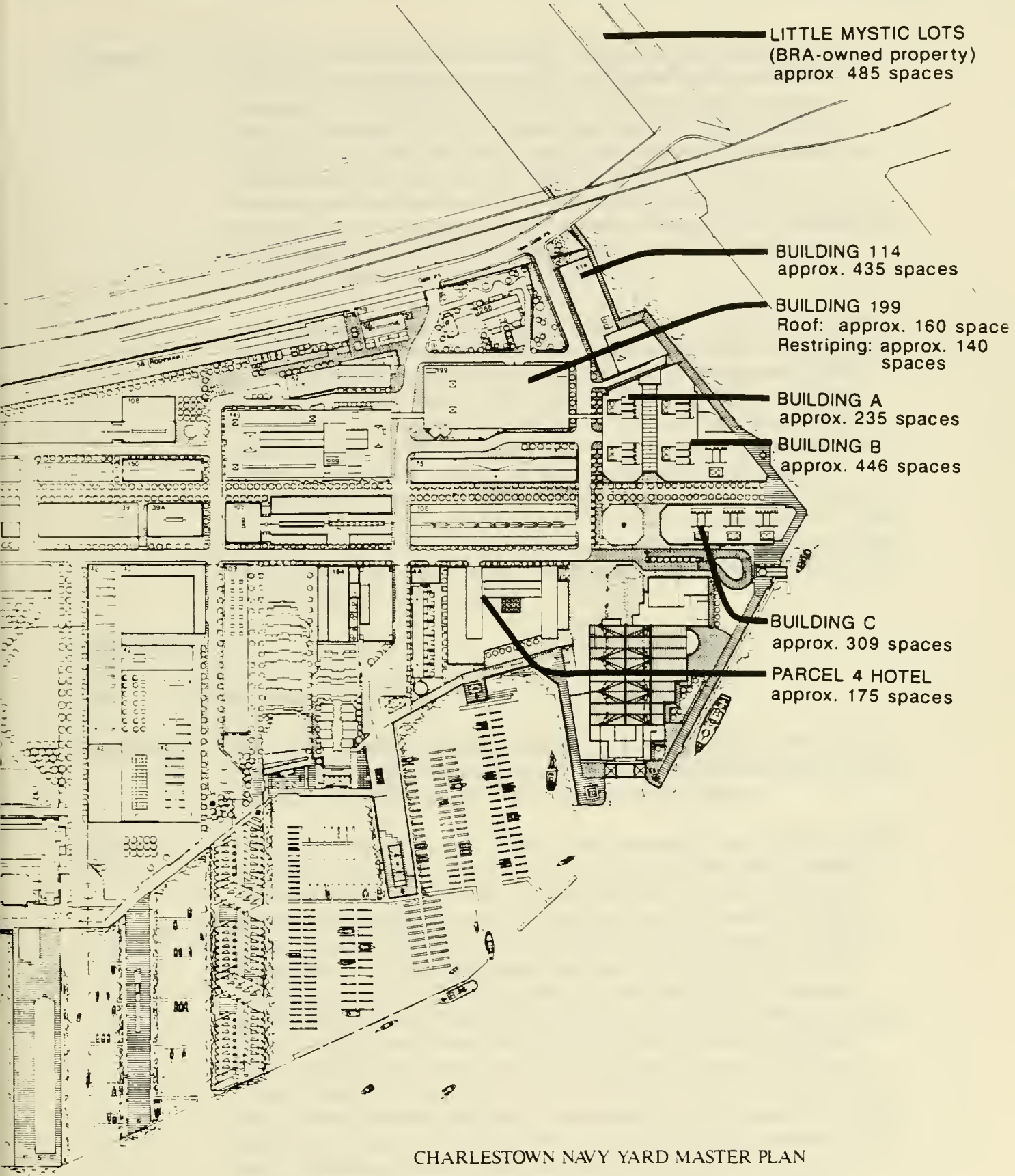
**Comment #37**

***Topic:*** *Transit Service*

**Comment:** The FSEIR should discuss transit service to and from the rapid transit stations that would service the CNY and should indicate what transit services the proponent will commit to.

Figure 15

## CHARLESTOWN NAVY YARD FUTURE ADDITIONAL PUBLIC PARKING FACILITIES




CHARLESTOWN NAVY YARD MASTER PLAN

**Response:** The proposed transportation mitigation program for the Charlestown Navy Yard, and the responsibility of the BRA and other agencies and private organizations for individual elements of that program are set forth in Table 57 of the DSEIR. With respect specifically to public transit, the transportation analysis presented in the SEIR assumes that as demand for public transportation grows in the Charlestown Navy Yard, the Massachusetts Bay Transportation Authority will adjust its routes and schedules so as to continue meet this demand effectively. Neither the BRA nor the redevelopers of particular parcels can commit to expansions of public transit service on behalf of the MBTA.

The Charlestown Navy Yard presently achieves a modal split of over 40 percent non-private auto access. This is achieved through a combination of public and private transportation modes. As new developments undergo development review under Article 31 of the Boston Zoning Code, each redeveloper will be required to enter into a Transportation Access Plan Agreement with the Boston Transportation Department implementing the specific commitments necessary to achieve the target modal splits. Appropriate adjustments in MBTA service levels will also be addressed cooperatively through the Transportation Management Association of which the MBTA is a member. The Transportation Management Association will also coordinate the private shuttle services of occupants of the Navy Yard to assure effective service levels.

**Comment #38**

***Topic:*** *Circumferential Transit Line*

**Comment:** The FSEIR should discuss the proposed circumferential transit line which would operate from the Longwood Medical Area in Boston through Central Square in Cambridge to Community College in Charlestown.

**Response:** The MBTA has undertaken studies of the potential for the development of a new rapid transit line in what is known as the Circumferential Corridor. The MBTA studies, completed in 1989, identified the most likely initial segment of the corridor to be a line running from Community College Station on the Orange Line, through Lechmere, East Cambridge, Kendall Square, and MIT. The line would then cross the Charles River in the vicinity of the Boston University Bridge, travel through the Longwood Medical Area and Northeastern University, and terminate at Ruggles Station on the Orange Line. Extensions of this line from Community College Station to the Charlestown Navy Yard and possibly across the Harbor to Logan Airport were examined early in the study process. At that time it was concluded that the difficulty of constructing a line through the National Park and the Navy Yard would force a subway segment at extremely high cost. In addition, ridership estimates developed by CTPS indicated the level of potential ridership would not justify the expense. For these reasons, the Navy Yard rapid transit link was dropped from further study.

At the present time, operation of the initial Circumferential Transit Line segment (Community College to Ruggles) is unlikely before the year 2010; and linkages beyond Community College to the Navy Yard, if constructed, would follow substantially later. Since the MBTA has no stated plans to build a line to the Navy Yard, the Circumferential Project was not assumed to be in place by the Charlestown Navy Yard Master Plan DSEIR design years of 1998 and 2005.

Since completion of these studies, the CA/T Project's "Scheme Z" interchange has added the potential for new highway ramps and tunnels along the alignment of a transit line from Community College Station to the Navy Yard. No studies have been undertaken of the potential impacts of this interchange on possible alignments of a rapid transit or light rail line; thus, no drawings of possible light rail alignments through the "Scheme Z" interchange (or the alternatives to "Scheme Z," now being considered) have been developed by the State.

**Comment #39**

***Topic:*** *Shuttle Services*

**Comment:** The FSEIR should discuss in detail the existing shuttle services in the CNY.

**Response:** Existing shuttle services to the Navy Yard is provided at no cost to employees of the Massachusetts General Hospital, the Boston Redevelopment Authority, and the Massachusetts Water Resources Authority by their respective employers. Routes and schedules vary to meet demand. In addition, the MBTA provides public shuttle service within the Navy Yard. The DSEIR, at pages 100-102, does provide specific and detailed information on existing shuttle services.

**Comment #40**

***Topic:*** *Expansion of Bus Routes*

**Comment:** The FSEIR should commit to some expansion of public transit bus routes to and from the CNY and rapid transit stations or some other alternative, such as a light rail line from the Navy Yard.

**Response:** See response to Comment #37 of DSEIR Certificate (Letter 1).

**Comment #41**

***Topic:*** *Construction Coordination*

**Comment:** The proponent will be required to coordinate construction schedules, truck routing, and staging areas with the Central Artery project.

**Response:** As requested by the Executive Office of Transportation and Construction (EOTC), the Construction Management Plans required by the City of Boston Transportation Department will be prepared in close collaboration with the CANA and the Central Artery project teams. These plans, which will address such issues as truck routing, construction schedules, location of staging and storage areas, street occupancy, and public safety, among others will be coordinated with the CANA and Central Artery construction plans so as to minimize impacts on local neighborhood areas and be consistent with the traffic and other management plans of the Massachusetts DPW. Construction Management Plans will be submitted to the respective project teams for review prior to being finalized.

LETTER 2

# United States Department of the Interior

NATIONAL PARK SERVICE
Boston National Historical Park
Charlestown Navy Yard
Boston, MA. 02129

REPLY REFER TO:

July 26, 1991

A3815 (BOST-AS)

RECEIVED
JUL 2 1991
MEPA

Secretary Susan Tierney
Massachusetts Executive Office
of Environmental Affairs
100 Cambridge Street
14th Floor
Boston, Massachusetts 02108

Dear Secretary Tierney:

We are writing in support of the Boston Redevelopment Authority's Draft Supplemental Environmental Impact Report for the Charlestown Navy Yard.

1 We support the proposed redevelopment program, particularly the addition of the New England Aquarium. We also commend the BRA on progrss to date in responding to preservation concerns related to the Historic Monument Transfer Area of the Navy Yard. We note, however, that the BRA has not yet developed stabilization plans and rehabilitation guidelines for the Ropewalk, Tar House, and Chain Forge buildings. The BRA will need to reach agreement with the National Park Service on these stabilization plans and rehabilitation guidelines in order to enable an Amendment to the Program of Preservation and Utilization for the Historic Monument Transfer Area.

Thank you for the opportunity to comment upon the Draft Supplemental EIR for the Navy Yard.

Sincerely,

John J. Burchill
Superintendent

## LETTER 2 - UNITED STATES DEPARTMENT OF THE INTERIOR, NATIONAL PARK SERVICE

**Comment #1**

***Topic:*** *Historic Monument Transfer Area*

**Comment:** BRA will need to reach agreement with the National Park Service on stabilization plans and rehabilitation guidelines for the Ropewalk, Tar House, and Chain Forge in order to enable an Amendment to the Program of Preservation and Utilization for the Historic Monument Transfer Area.

**Response:** A stabilization report for the Ropewalk, Tar House, and Chain Forge was submitted to the National Park Service on May 20, 1991. This report was approved by the National Park Service on June 19, 1991. Subsequently, the BRA has completed contract documents to accomplish the work described in the stabilization report. The contract documents have been submitted for National Park Service approval, and upon such approval the BRA will advertise the stabilization contract. The stabilization report is included as Appendix B of this FSEIR.

Rehabilitation guidelines are under preparation and will be submitted for National Park Service approval in order to enable amendment of the Program of Preservation and Utilization for the Historic Monument Transfer Area, as indicated in the National Park Service comment.

LETTER 3

BG

RECEIVED
JUL 3 ~ 1991
MEPA

July 24, 1991

Secretary Susan Tierney
Executive Office of Environmental Affairs
100 Cambridge Street 20th Floor
Boston, MA 02202

Attn: William Gage, MEPA Unit

Re: Charlestown Navy Yard Redevelopment DSEIR, Boston, MA EOEA No. 2383

Dear Secretary Tierney:

The staff of the Massachusetts Historical Commission has reviewed the Draft Supplemental Environmental Impact Report for the redevelopment of the Charlestown Navy Yard. The former Boston Naval Shipyard is listed on the State and National Registers of Historic Places and is a National Historic Landmark.

The MHC has been consulting extensively with the Boston Landmarks Commission, the National Park Service and the Boston Redevelopment Authority over the past eighteenth months in reviewing proposed changes to the 1978 Master Plan. The consultation process has yielded amendments to the revised Master Plan that are beneficial to the historical and architectural significance of the Navy Yard, or that minimize or mitigate any adverse effects. This consultation process has been undertaken in compliance with Memoranda of Agreement between the Massachusetts State Historic Preservation Officer (MHC), the Advisory Council on Historic Preservation and the General Services Administration which ensure that any proposed amendments to the 1978 Master Plan are afforded substantive review for their effects on the former Boston Naval Shipyard.

The DSEIR adequately documents the MHC's review of the revised Master Plan, to date, with a few exceptions. The MHC has agreed to revised guidelines for Parcels 4A, 4B, 5, 6 and 7. The revised guidelines in the DSEIR do not reflect the most current agreed-upon guidelines. The Final SEIR should include the guidelines that were approved and signed by the MHC on July 19, 1991. Also, Figure 1 in Section 2, the site identification map, indicates that there appears to be an atrium constructed between the proposed buildings on Parcels 6 and 7. This may be in conflict with the visual easements contained in the 1978 Master Plan (map dated 8/1/76) which indicate that the view corridor along Second Avenue to the water is to be maintained.

Massachusetts Historical Commission, Judith B. McI 70 *Executive Director, State Historic Preservation Officer*
80 Boylston Street, Boston, Massachusetts 02116 (617) 727-8470
Office of the Secretary of State, Michael J. [illegible]

The DSEIR includes an abbreviated version of the Interpretive Plan for the Navy Yard. Planning and providing for this interpretation will ensure understanding of the rich history and development of the entire Yard for all Yard visitors, workers, and residents. Moreover, the plan envions linking and integrating two major known visitor resources, the National Park Service and the proposed Aquarium, through a pedestrian loop system that features new exhibits and interpretive devices for the lesser known resources of the Yard,
3 such as the Chain Forge and Foundry, the Ropewalk Complex, the former Shipways. Planning and implementing the overall interpretation is a chief public benefit of the overall revised master plan of the BRA and is considered one of the major mitigating elements developed during the consultation process. MHC looks forward to its development as a serious project which will produce appropriate exhibits, interpretive devices, and informational materials that recognize and respect the National Historic Landmark.

These comments are offered to assist in compliance with Section 106 of the National Historic Preservation Act, as amended (36 CFR 800), M.G.L. Ch. 9, ss. 26-27C, as amended (950 CMR 71) and MEPA.

If you have any questions, please contact Maureen A. Cavanaugh or me.

Sincerely,

Judith B. McDonough

Judith B. McDonough
Executive Director
State Historic Preservation Officer

cc: Advisory Council on Historic Preservation
National Park Service/Mid-Atlantic Regional Office
National Park Service/Boston National Historic Park
Coastal Zone Management
Boston Landmarks Commission
Boston Preservation Alliance
Boston Redevelopment Authority

## LETTER 3 - MASSACHUSETTS HISTORICAL COMMISSION

**Comment #1**

***Topic:*** *Historic Resources*

**Comment:** The revised guidelines in the DSEIR do not reflect the most current agreed-upon guidelines. The FSEIR should include the guidelines that were approved and signed by the MHC on July 19, 1991.

**Response:** The new design guidelines, dated July 19, 1991, which have been approved and signed by the Massachusetts Historical Commission and the President's Advisory Council on Historic Preservation, are included as Appendix A of this FSEIR.

**Comment #2**

***Topic:*** *Visual Easements*

**Comment:** The site identification map (Fig. 1) indicates that there appears to be an atrium constructed between the proposed buildings on Parcels 6 and 7. This may be in conflict with the visual easements contained in the 1978 Master Plan which indicate that the view corridor along Second Avenue to the water is to be maintained.

**Response:** As more particularly described in the response to Comment #3 of the DSEIR Certificate (Letter 1), the new Design Guidelines include no change affecting the Second Avenue view corridor relative to the 1978 Design Guidelines. Design review of any proposed development to determine consistency with the new Design Guidelines will be undertaken by the Massachusetts Historical Commission.

**Comment #3**

***Topic:*** *Double Interpretive Loop Plan*

**Comment:** Planning and implementing the overall interpretation is a chief public benefit of the overall revised master plan and is considered one of the major mitigating elements developed during the consultation process. MHC looks forward to its development as a serious project which will produce appropriate exhibits, interpretive devices, and information materials.

**Response:** The BRA has continued to develop the Double Interpretive Loop concept in accord with the commitments specified in the DSEIR. Appendix C of this FSEIR presents an update in this regard. The BRA looks forward to further input of the Massachusetts Historical Commission, the National Park Service, and the Boston Landmarks Commission as this concept moves

toward detailed design and implementation to insure its potential is fully realized.

LETTER 4

RECEIVED
JUL 29 199
MEPA

July 26, 199

Secretary Susan Tierney
Executive Office of Environmental Affairs
100 Cambridge Street 20th Floor
Boston, MA 02202

Boston Landmarks Commission
City of Boston
The Environment Department
Boston City Hall/Room 805
Boston, Massachusetts 02201
617/725-3850

Attn: W. Gage
Re: EOEA #2383, Charlestown Navy Yard Supplemental Draft Environment Impact Report (SDEIR)

Dear Secretary Tierney:

The staff of the Boston Landmarks Commission has reviewed the SDEIR submitted by the Boston Redevelopment Authority for the redevelopment of the Charlestown Navy Yard and hereby submits the following comments in response.

For the past eighteen months, the staff of the BLC along with the Massachusetts Historical Commission (MHC), the President's Advisory Council on Historic Preservation (ACHP), the National Park Service (NPS) and the Boston Redevelopment Authority (BRA) have been involved in a review of the project pursuant to Section 106 of the National Historic Preservation Act of 1966. The SDEIR for the most part reflects the efforts of the Section 106 process to date.

1 A few points of difference exist between the SDEIR and the the 1978 Memorandum of Agreement between the General Services Administration, ACHP, and MHC with the concurrence of the BRA. These include a glass connector between the buildings on parcels 6 and 7, where the 1978 design guidelines called for a Visual Easement to be maintained for Second Avenue; and a mixed height limit for new construction on Pier 5, where the guidelines required a height of 55 feet along the full length of the pier. It is our understanding that these differences have now been resolved by the revised Design Guidelines for New Parcels (New Development Guidelines) recently signed by Judith B. McDonough, State Historic Preservation Officer, MHC. The BLC feels that these revised guidelines best protect the Historic Resources within the Historic Monument Area adjacent to the New Development parcels, and requests that they be included in the final report.

2 The BLC staff is encouraged with the discussion in the report of the development of a Double Interpretive Loop. This concept should reinforce the importance of the Historic Resources in the Yard by making them more accessible to the public and ensuring their preservation. The BLC is looking forward in working with the BRA to develop this part of the plan.

Finally, the BLC staff is encouraged by the review process that has been completed to date and believes that the current plan submitted by the BRA has been greatly improved.

Thank you for the opportunity to comment.

Sincerely,

Michael A. Cannizzo, AIA
Staff Architect
Boston Landmarks Commission

cc: Lorraine M. Downey, Boston Environment Deparment
Massachusetts Historical Commission
Boston Preservation Alliance
National Park Service Mid-Atlantic Regional Office

mac:1482E:9

## LETTER 4 - BOSTON LANDMARKS COMMISSION

**Comment #1**

***Topic:*** *Historic Resources*

**Comment:** The revised design guidelines recently signed by Judith B. McDonough, State Historic Preservation Officer, MHC, best protect the historic resources within the Historic Monument Area and should be included in the FSEIR.

**Response:** The new design guidelines signed by the Massachusetts Historical Commission are included as Appendix A of this FSEIR.

**Comment #2**

***Topic:*** *Double Interpretive Loop Plan*

**Comment:** BLC is encouraged with discussion in the DSEIR of the development of a Double Interpretive Loop and looks forward in working with the BRA to develop this part of the plan.

**Response:** The BRA likewise looks forward to working with the Boston Landmarks Commission in further development of the Double Interpretive Loop Plan. Additional work to date is included in Appendix C of this FSEIR.

LETTER 5

Commonwealth of Massachusetts
Executive Office of Environmental Affairs
**Department of Environmental Protection**

Daniel S. Greenbaum
Commissioner

RECEIVED
AUG 19?1
MEPA

TO: Janet McCabe, Director, MEPA Unit

FROM: Christy Foote-Smith, Director,
Division of Wetlands and Waterways

DATE: August 2, 1991

RE: Comments on the Draft Supplemental Environmental Impact Report, Charlestown Navy Yard, Boston Redevelopment Authority, Boston, MA
EOEA #2383

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The Department of Environmental Protection, Waterways Regulation Program, has reviewed the referenced Draft Supplemental Environmental Impact Report (DSEIR) noticed in the Environmental Monitor on June 26, 1991. The DSEIR is a master plan for the Charlestown Navy Yard which describes proposed changes in the redevelopment program. The proposed redevelopment program includes: construction of a hotel and conference facility, 198 units of affordable housing, aquarium, biomedical research center, harborwalk extension, pedestrian walkways to link waterfront attractions with historic exhibits, and bypass road adjacent to Medford Street to connect Sullivan Square with the Navy Yard.

The Department does not support the BRA's contention that further MEPA review is unnecessary for individual projects within the Navy Yard. Accordingly, the requirement for additional MEPA review, as specified in the Secretary's letter to the BRA dated January 2, 1991, should remain in effect.

1 The Department further recommends that the Final SEIR include additional information appropriate to a master plan. The information necessary to assess how the proposed redevelopment program, as a whole, functions under full build-out conditions includes a site plan with overlays showing the historic mean high water shoreline, flood zones, structures or areas which have been altered or have undergone a change in use since 1978, and existing c. 91 licenses; an examination in greater detail of existing and proposed water-side uses; additional wind/shadow information examining the effects on the pedestrian level environment due to the relative positioning and heights of all the buildings; an examination of how the proposed individual

One Winter Street • Boston, Massachusetts 02108 • FAX (617) 556-1049 • Telephone (617) 292-5500

DATE COMMENT

projects meet the Department's nonwaivable c. 91 standards; and an analysis of whether individual projects, such as the residential housing on Pier 5, will comply with federal, state, and local velocity zone requirements in the floodplain.

The Department also has the following specific comments:

2 o Chapter 91 Jurisdiction: Based upon review of the Department's licensing records, it is evident that the majority of the proposed activities and structures are located on filled and flowed tidelands of the Boston Inner Harbor. Since this proposal involves a number of changes in use and structural alterations of filled and flowed tidelands from those authorized in past licenses, regulatory review and authorization for individual development activities is required by the Department pursuant to M.G.L. Chapter 91 and its regulations 310 CMR 9.00.

3 o Historical Licensing Information: The proponent should provide plans delineating the specific portions of the site which received past c. 91 license approval, the location of the earliest known historical mean high and low water shorelines taken from historical plans and other sources recognized as reliable, the location of the first public way landward of the present mean high water shoreline, and the location of flood zones. This analysis should be superimposed over Figure 1 of the DSEIR. Additionally, in order to assist the Department in determining which individual projects require c. 91 licensure, the proponent should identify, on the superimposed plan, the locations where structural alterations or changes in use have occurred since 1978 or are proposed. Some of the information contained in Figures 66 and 72 would be appropriate for this task.

4 o Nonwater-Dependent Use of Tidelands: Components of the proposed redevelopment program include the construction of marinas, harbor walkways, and an aquarium; water-dependent uses. However, other elements of the redevelopment program including the hotel, restaurants, offices, residential housing, associated parking facilities, the elderly housing in Building 104, and the parking garage in Building 114 are not "uses and facilities which require direct access to, or location in marine or tidal waters and which cannot be located inland..." as specified in Chapter 91 Section 1 and are therefore nonwater-dependent uses. Accordingly, the Department will make the determination of water-dependency on a case-by-case basis as individual applications are received. The proponent should take note that in order for

the restaurants associated with the marinas to be considered accessories to a water-dependent use, they will need to demonstrate, pursuant to 310 CMR 9.12(3)(a) and (b) that the restaurants are integral in function to the operation of the marina, or provide related goods and services primarily to persons using the marina; and are commensurate in scale with operation of the marina.

5 o Water-side Uses: The proponent is to be commended for incorporating water-side uses, such as marinas and water transportation facilities, into the master plan. However, a greater level of detail is needed in order to assess whether the proposed size and location of these facilities is appropriate. In order to perform this assessment, the proponent should provide the following: nearshore water depths, classes of vessels that use the watersheet, vessel maneuvering room, existing traffic patterns, effects of the proposed water-side uses on the navigability of Boston Inner Harbor in the vicinity of the Navy Yard, fueling facilities, pumpouts, State Harbor Lines, and Federal Channel Lines. In addition, potential impacts related to the construction of the Medford Street Bypass on existing and proposed water-dependent-industrial uses within the Mystic River Designated Port Area need to be analyzed.

6 The existing 180 slip marina adjacent to Pier No. 8, Waterways Application No. W89-066, has not yet received its c. 91 Waterways license. The outstanding issue is a conflict with the Federal Channel Line. This matter must be resolved prior to a final decision on the Waterways application.

7 o Flood Hazards: The housing proposed for Pier 5 is located in a velocity zone subject to severe coastal flooding as shown on the City of Boston Flood Insurance Rate Map (FIRM) issued by the Federal Emergency Management Agency (FEMA) dated November 2, 1990. Accordingly, the proposed redevelopment program will need to be modified in order to comply with section 2102.0 of the State Building Code, the City's floodplain ordinance adopted to participate in the FEMA program, and the nonwaivable standards of the c. 91 waterways regulations at 310 CMR 9.37 since the housing on Pier 5 falls under the new waterways regulations pursuant to the Secretary's January 2, 1991 letter to the BRA. FEMA requirements, adopted by the City, require that no structures be constructed or substantially improved seaward of mean high water in a velocity zone. Construction or use of structures for human occupancy in a flood zone places occupants and their property in jeopardy and is not wise public policy. Accordingly, in addition to modifying the

redevelopment program to comply with the above referenced requirements, the proponent should prepare an evacuation plan to coordinate the evacuation of the different buildings prior to flooding events.

8 o Issues Related To Grandfathering Under The Previous C. 91 Regulations: Immobilaire New England has asserted to the Department that their project, Waterways Application No. W90-0686-N, is subject to review under the previous Waterways Regulations. This assertion is referenced on page 267 of the DSEIR. Immobilaire applied for a license on October 3, 1990, to construct and maintain the 400 room hotel, restaurant, residences, and associated parking on Parcel 4A; 75 slip marina on Parcel 4B; Biomedical Research Center, and offices on Parcels 6 and 7; 110 housing units and a marina on Pier 5; and a yacht club and restaurant on Pier 8.

For nonwater-dependent use projects to be considered under the previous regulations, pursuant to 310 CMR 9.09(2)(b), the Department must determine that the project provides essential economic support to an associated water-dependent use of particular statewide or regional significance, or the Secretary has stated that the project adequately and properly complies with MEPA in the certificate on the DEIR. Immobilaire's assertion, that the project is subject to review under the previous waterways regulations, was based upon 2 premises: (1) the proposed project provided essential economic support to an associated water-dependent use, which they argued was the New England Aquarium; and (2) the Secretary approved their proposed project prior to October 4, 1990, the effective date of the current Waterways Regulations, in his DEIR certificate for the Navy Yard.

The Department made a finding in a letter to Immobiliaire dated November 30, 1990, that the project did not provide essential economic support to the New England Aquarium within the meaning of Section 9.09(2)(b) of the Waterways Regulations. In addition, the Secretary's letter to the BRA dated Janauary 2, 1991, required further MEPA review for portions of the project and specifically stated that Buildings 2 and 3 of the proposed Biomedical Research Center and the 110 dwelling units proposed for Pier 5 were not grandfathered since the 1978 FEIR does not constitute a "certified Draft EIR."

Please note also that application differs from that described in the DSEIR. For example, the application includes residences on Parcel 4A, whereas the DSEIR does not

include these residences.

9 o Proper Public Purpose: Chapter 91, section 18 requires that projects for nonwater-dependent uses "serve a proper public purpose and that said purpose...provide a greater public benefit than public detriment to the rights of the public" in tidelands. It is unclear to the Department, from review of the DSEIR, which specific benefits to the public's rights in tidelands are associated with each individual nonwater-dependent use project. For instance, which benefits are associated with the development of Building 114 as a parking garage? Which benefits are associated with the development of Building 104 for elderly housing? Accordingly, the proponent should specifically identify the benefits to the public's rights in tidelands proposed to be associated with each individual project.

10 o Future MEPA Review of Individual Projects: The DSEIR was designed to function as a master plan. Additional impacts that the proponent should study in the FSEIR, at the master plan level, include items such as as those listed above and potential wind and shadow effects resulting from a
11 combination of buildings. As far as additional study of potential impacts from individual projects is concerned, the proponent should submit individual Environmental Notification Forms (ENF) or EIRs to MEPA as previously specified in the Secretary's letter to the BRA dated January 2, 1991.

If you have any questions regarding the above issues, please feel free to contact Thomas Maguire of my staff at (617) 292-5695.

CFS/TMM/tmm

cc: BRA
DEP NE Region
DEM Flood Hazard Management Program
FEMA

## LETTER 5 - MASSACHUSETTS DEPARTMENT OF ENVIRONMENTAL PROTECTION

**Comment #1**

***Topic:*** *Further Waterfront Study*

**Comment:** The Department recommends that the Final SEIR include (1a) a site plan with overlays showing the historic mean high water shoreline, flood zones, structures or areas which have been altered or have undergone a change in use since 1978, and existing c. 91 licenses; (1b) an examination in greater detail of existing and proposed water-side uses; (1c) additional wind/shadow information examining the effects on the pedestrian level environment due to the relative positioning and heights of all the buildings; and (1d) an examination of how the proposed individual projects meet the Department's nonwaivable c. 91 standards; (1e) and an analysis of whether individual projects, such as the residential housing on Pier 5, will comply with federal, state, and local velocity zone requirement in the floodplain.

**Response:**

1a. See response to Comment #8 of Letter 1, the DSEIR Certificate.

1b. See response to Comment #12 of Letter 1, the DSEIR Certificate.

1c. See response to Comment #13 of Letter 1, the DSEIR Certificate.

1d. See response to Comment #17 of Letter 1, the DSEIR Certificate.

1e. As noted in the Secretary's certificate on the DSEIR, issues relating to the development of Pier 5 will be addressed in a separate EIR for the project. All elements of the Charlestown Navy Yard Redevelopment will be constructed in conformity to applicable flood zone requirements.

**Comment #2**

***Topic:*** *Chapter 91 Jurisdiction*

**Comment:** Since this proposal involves a number of changes in use and structural alterations of filled and flowed tideland from those authorized in past licenses, regulatory review and authorization for individual development activities is required by the Department pursuant to M.G.L. Chapter 91 and its regulations 310 CMR 9.00.

**Response:** See response to Comment #8 of Letter 1, the DSEIR Certificate.

*Topic:* *Historical Licensing Information*

**Comment:** The proponent should provide plans delineating the specific portions of the site which received past c. 91 license approval, the location of the earliest known historical mean high and low water shorelines taken from historical plans and other sources recognized as reliable, the location of the first public way landward of the present mean high water shoreline, and the location of flood zones. This analysis should be superimposed over Figure 1 of the DEIR. Additionally, in order assist the Department in determining which individual projects require c. 91 licensure, the proponent should identify, on the superimposed plan, the locations where structural alterations or changes in use have occurred since 1978 or are proposed. Some of the information contained in Figures 66 and 72 would be appropriate for this task.

**Response:** See response to Comment #8 of Letter 1, the DSEIR Certificate.

The accompanying Figure 16 identifies the locations where structural alterations or changes in use have occurred since 1978 or are proposed.

**Comment #4**

*Topic:* *Non-Water Dependent Use of Tidelands*

**Comment:** The proponent should take note that, in order for the restaurants associated with the marinas to be considered accessories to a water-dependent use, they will need to demonstrate, pursuant to 310 CMR 9.12(3)(a) and (b) that the restaurants are integral in function to the operation of the marina, or provide related goods and services primarily to persons using the marina; and are commensurate in scale with operation of the marina.

**Response:** Comment noted.

**Comment #5**

*Topic:* *Water-Side Uses*

**Comment:** In order to assess whether the water-side uses are appropriate, the following should be provided: nearshore water depths, classes of vessels that use the watersheet, vessel maneuvering room, existing traffic patterns, effects of the proposed water-side uses on the navigability of Boston Inner Harbor in the vicinity of the Navy Yard, fueling facilities, pumpouts, State Harbor Lines, and Federal Channel Lines. In addition, potential impacts related to the construction of the Medford Street Bypass on existing and proposed water-dependent-industrial uses within the Mystic River Designated Port Area need to be analyzed.

**Response:** See response to Comments #8 and #12 of Letter 1, the DSEIR Certificate.

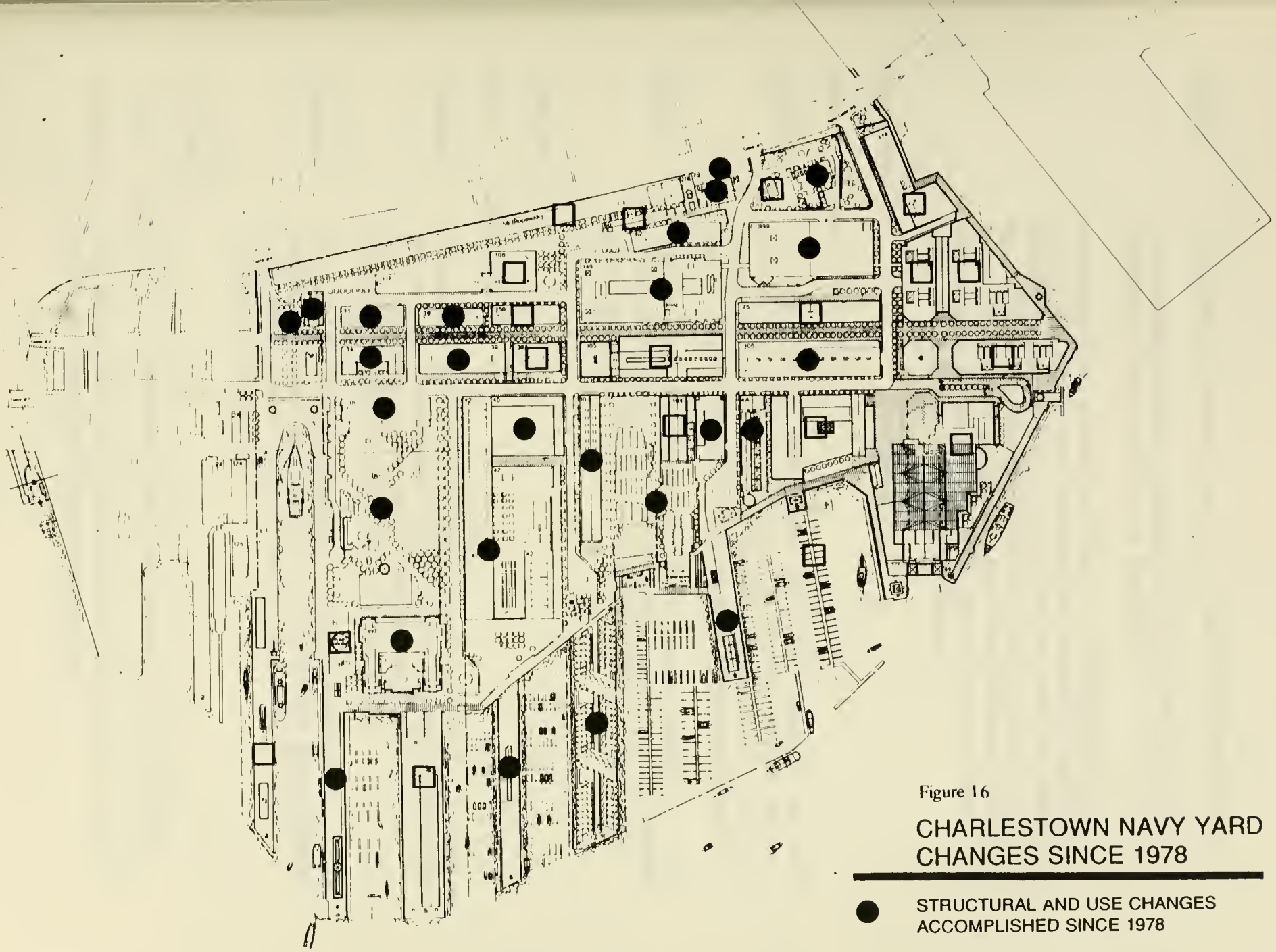

Figure 16

## CHARLESTOWN NAVY YARD CHANGES SINCE 1978

● STRUCTURAL AND USE CHANGES ACCOMPLISHED SINCE 1978

□ PROPOSED CHANGES YET TO BE ACCOMPLISHED

**Response:** See response to Comments #8 and #12 of Letter 1, the DSEIR Certificate.

The accompanying Figure 17 indicates the nearshore water depths in the Little Mystic Channel and the Boston Inner Harbor.

With respect to the Medford Street Bypass, it is anticipated that any environmental impacts on the Designated Port Area will be positive by providing an alternative route for truck traffic that avoids City Square and the residential areas along Medford Street. However, it should be noted that the Medford Street Bypass is not part of the Charlestown Navy Yard Redevelopment as proposed and was not assumed or deemed necessary as mitigation in any of the traffic analyses conducted.

**Comment #6**

***Topic:*** *Existing 180 Slip Marina*

**Comment:** The existing 180 slip marina adjacent to Pier No. 8, Waterways Application No. W89-066, has not yet received its c. 91 Waterways license. The outstanding issue is a conflict with the Federal Channel Line. This matter must be resolved prior to a final decision on the Waterways application.

**Response:** Comment noted. This comment concerns the existing marina at Pier 8, not the proposed marina at Piers 9 and 10. The developer of the Pier 8 marina is now working to eliminate an encroachment beyond the State Harbor Line.

**Comment #7**

***Topic:*** *Flood Hazards*

**Comment:** The proposed redevelopment program for Pier 5 will need to be modified in order to comply with Section 2102.0 on the City's floodplain ordinance and the program should also prepare an evacuation plan to coordinate the evacuation of different buildings prior to flooding events.

**Response:** The issues of compliance by the Pier 5 housing development with applicable floodplain regulations and evacuation planning prior to flooding events will be discussed in the separate EIR which is required by the Secretary for that project.

**Comment #8**

***Topic:*** *Issues Related to Grandfathering Under the Previous Chapter 91 Regulations*

**Comment:** DEP does not agree that the Immobilaire New England project is subject to review under the previous Waterways Regulations.

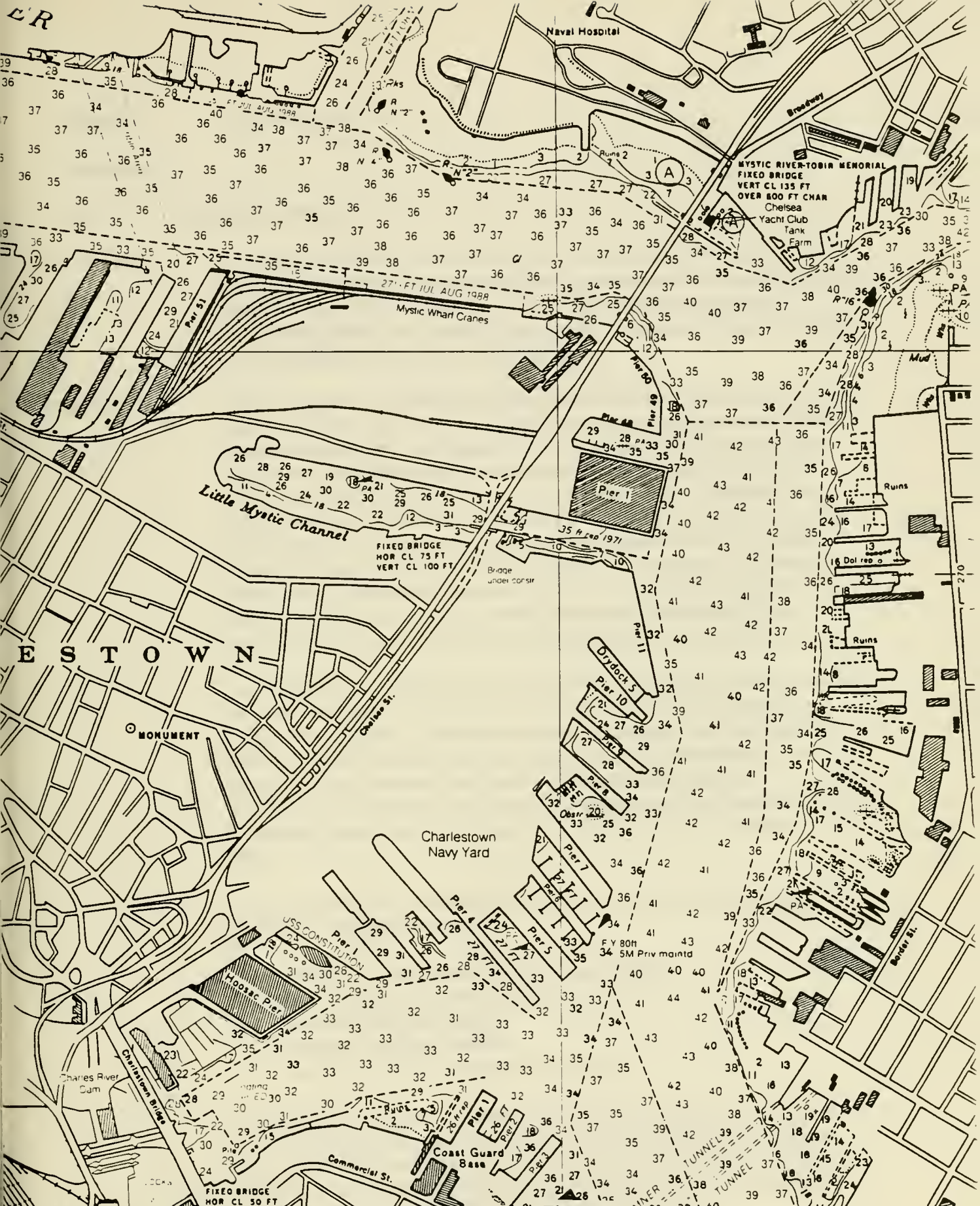


**Figure 17**

**NEARSHORE WATER DEPTHS**

**FROM NOAA CHART**

**Response:** Comment noted.

**Comment #9**

***Topic:*** *Proper Public Purpose*

**Comment:** It is unclear to the Department, from review of the DSEIR, which specific benefits to the public's rights in tideland are associated with each individual nonwater-dependent use project. Accordingly, the proponent should specifically identify the benefits to the public's rights in tidelands proposed to be associated with each individual project.

**Response:** The Department's regulations, at 310 CMR 9.31, state that the Department shall presume that a non-water dependent use project (other than a public infrastructure project) on tidelands serves a proper public purpose if the project complies with the provisions of Sections 9.51 to 9.53 and is consistent with the policies of the Massachusetts Coastal Zone Program ("CZM Policies"). Pursuant to Section 9.34(2)(b)(3), consistency with the CZM Policies is presumed if the project is consistent with an approved Municipal Harbor Plan, barring unforeseen circumstances. The Municipal Harbor Plan is pertinent to Sections 9.51 to 9.53 as well, since these sections contain the provisions of the Chapter 91 regulations that are waivable for projects complying with an approved Municipal Harbor Plan.

In consultations with DEP on the Boston Municipal Harbor Plan, the major proposed buildings of the Charlestown Navy Yard Redevelopment were extensively reviewed. These buildings are consistent with the Municipal Harbor Plan as approved, and their specific uses are discussed both in the Plan and in the Secretary's approval. Full compliance with the requirements of Sections 9.51 to 9.53, as well as with the provisions of the Municipal Harbor Plan, is anticipated as project designs are further developed.

Areas of compliance, as described in the Municipal Harbor Plan and the Secretary's decision include:

- o provision of facilities of public accommodation
- o restrictions on facilities of private tenancy
- o maximum building height
- o minimum building setbacks
- o minimum publicly accessible open space

A proper public purpose recommendation shall be made by the BRA as Boston's Planning Board at the time a Chapter 91 license application is filed. The Department shall make its determination regarding whether a project serves a proper public purpose following this recommendation in accordance with the requirements of 310 C.M.R. 9.31(2).

**Comment #10**

***Topic:*** *Wind and Shadow Studies*

**Comment:** The proponent should study in the FSEIR the potential wind and shadow effects resulting from a combination of buildings.

**Response:** Analyses of the potential wind and shadow effects resulting from the combination of the construction of Buildings A, B, and C of the proposed Biomedical Research Center, the New England Aquarium, and the proposed Hotel on Parcel 4, together with the existing buildings in the Navy Yard which will remain under the Proposed Plan, have been performed by Frank H. Durgin, P.E., and Sasaki Associates, Inc., and are included in the FSEIR as Appendices F and G. These studies indicate that the full buildout of the Yard's End portion of the Navy Yard will have minimal adverse impact on the pedestrian-level wind and shadow conditions.

In general, wind conditions at the main entrances to the project buildings are expected to be acceptable for all winds. Wind conditions in Yard's End Park also will be much improved over existing conditions with development of the proposed project. Winds along other pedestrian pathways will remain relatively unaffected under build conditions. However, winds are expected to be accelerated along the north part of the Harborwalk in the vicinity of Building 114 and could exceed the BRA effective gust guideline of 31 mph. While wind conditions over the rest of the Harborwalk will still be windy at times, this is a result of the exposed nature of the Harborwalk.

Similarly, shadow impacts from the proposed developments will not be significant. The Yard's End Park will remain very sunny throughout most of the year; only in the early morning hours and during the winter months is the Park shaded. The Aquarium will cast some shadow on its entry plaza in the morning hours, and the Hotel will partially or fully shade this plaza by mid-afternoon. Buildings B and C of the Biomedical Research Center will put the northernmost section of the Harborwalk in shadow most days of the year, and the New England Aquarium will cast some shadow in the late afternoon on the eastern portion of the Harborwalk. However, it is significant that the portion of the Harborwalk on the western side of Pier 10 will never be in shadow except for the very early morning hours in the early summer, and that portion of the Harborwalk north of the Pier 8/9 marina only in mid- to late-afternoon.

The BRA has taken, and will take, all feasible mitigation measures to avoid or minimize the minimal wind and shadow effects associated with the proposed project development. Temporary wind impacts, pending the completion of full development at Yard's End, will be mitigated by the interim installation of wind breaks such as trees, shrubbery plantings, or architectural wind screens. Awnings or canopies, pedestrian arcades, and

other variations in the facades of the proposed buildings also can serve to lessen wind impacts. The two high-rise wings of the Hotel have been set back from the ground level by 30-foot high podiums, mitigating the impact of deflected winds on the ground-level pedestrian environment, and the main entrance of the Hotel will be located under an arcade and thus will be protected from all winds. Significant modifications have been made in the design of the proposed Biomedical Research Center in order to minimize the potential for adverse pedestrian-level wind conditions. The current L-shaped design of the mid-rise element of Building B along the Harborwalk, and the lower portions of the building between the wings, act to deflect the winds drawn down the facades of the taller elements.

Design modifications also have mitigated potential shadow impacts of the new developments. These modifications have included a reduction in the height of Buildings A and C of the Biomedical Research Center and a set-back of the 135-foot wing of the Hotel from Yard's End Park and the Aquarium entrance plaza. Shadows cast on the northerly portion of the Harborwalk, on the other hand, cannot feasibly be mitigated, since even a one-story building in this location would cause similar results.

The MEPA Office, on August 23, 1991, approved the Section 61 Findings filed by the BRA for the Parcel 4 Hotel and Building A of the Biomedical Research Center and determined that the filing of these documents concluded the MEPA process established in the Secretary's January 2, 1991 letter with respect to these facilities. These Findings evaluated, among other items, the potential wind and shadow impacts of these respective buildings and described the mitigation measures to avoid or minimize the minimal impacts associated with their construction.

**Comment #11**

***Topic:*** *Environmental Notification Forms*

**Comment:** The proponent should submit individual Environmental Notification Forms (ENF) or EIRs to MEPA as previously specified in the Secretary's letter to the BRA dated January 2, 1991.

**Response:** The proponent will comply with the instructions of the Secretary regarding future MEPA proceedings.

LETTER 6

COASTAL ZONE MANAGEMENT

The Commonwealth of Massachusetts
Executive Office of Environmental Affairs
100 Cambridge Street
Boston, Massachusetts 02202

RECEIVED
JUL 3 19
MEPA

MEMORANDUM

TO: Janet McCabe, Director, MEPA

FROM: Jeffrey R. Benoit, Director, MCZM

DATE: July 30, 1991

SUBJECT: EOEA #02383 --Charlestown Navy Yard Master Plan (Boston)

---

The Massachusetts Coastal Zone Management (CZM) Office has completed its review of the Draft Supplemental Environmental Impact Report (DSEIR) for the above-referenced project, consisting of the Master Plan for proposed redevelopment of the Charlestown Navy Yard. Although we feel that the DSEIR is adequate in terms of the range of issues set forth in the Secretary's letter to the Boston Redevelopment Authority (BRA) dated January 2, 1991, the following comments must be addressed in the Final EIR.

1 1. Vessel-related Use Program

The presentation of the vessel-related use program is confusing in places, lacks specific data and analysis, and does not sufficiently relate building setbacks to the development requirements of proposed water transportation facilities .

The master plan described in the DSEIR incorporates a progressive program to "activate" the water's edge with a variety of public recreational boating and water-borne transportation facilities. The location and general characteristics of these facilities are adequately described on the whole, although a few points need to be clarified regarding the program in Yard's End. First, a shuttle dock at Pier 11 is depicted on the site identification map of Figure 1 but the text on page 44 is ambiguous as to whether such a facility is actually proposed. Second, the setback distances for the hotel are not carefully described and shown to be in compliance with requirements of the ch.91 waterways regulations; also, the setback on Pier 11 is noted as being 65 feet whereas applicable zoning requires an average setback in this location of 75 feet. Finally, it is unclear whether "embarkation of passengers and cargo" is anticipated along the Little Mystic Channel frontage, insofar as no floats or other docking facilities are depicted in that location and it is stated

elsewhere that "only occasional short-term vessel layover and emergency access are planned".

Beyond clarification of the proposed configuration of facilities, it is essential that the vessel- related use program be accompanied by a full presentation of the data and lines of reasoning, addressing both shoreside and waterway considerations, on which the program is based. On the water side, for example, the DSEIR does not systematically document maximum wave exposures, nearshore depth ranges, watersheet available for maneuvering, existing traffic patterns, and other factors which affect the relative suitability of each shoreline segment for the respective vessel activities being proposed. Nor does the document show the location of state harbor lines and federal anchorage channels, including that off Pier 8 into which the marina breakwater presently extends and which cannot be licensed unless the channel boundary is amended through an Act of Congress. With proper planning, project-specific difficulties of this kind usually can be avoided.

Lacking relevant substantiation it is also not possible to effectively evaluate statements to the effect that the width of Pier 3 is adequate for larger vessels' gangways, ladders, and service needs (p. 41); that the distance between Piers 6 and 8 can accommodate the largest average recreational boats and still retain adequate navigation space(p. 43); that large vessels using Pier 11 have adequate turning radius to allow access to the main ship channel(p.44); and that the building setbacks of the hotel and biomedical center will accommodate the shuttle and layover uses planned for Pier 10 and the Little Mystic shorelines, respectively (pp. 44 & 45). It is especially important for the latter assertion to be demonstrated with reference to applicable data, given that the Secretary's decision of May 22, 1991 on the Boston Harborpark Plan requires that the City justify proposed deviations from the setback requirements of the waterways regulations in terms of whether there will be "sufficient space" in the water-dependent use zone to accommodate the shoreside activities and structures associated with the vessel usage called for in the plan (see also the harbor plan approval regulations at 301 CMR 23.05(3)(c)(3)).

Some of the information that needs to be pulled together for this evaluation is scattered throughout various studies that have been prepared in recent years such as the Boston Inner Harbor Water Transportation Study, the Prototype Docking Standards for Boston Harbor, and the Boston Inner Harbor Water-dependent Use Report. Reviewing this material would be a good starting point, although much of it is either too generic or tangential to the issues at hand, such that other primary sources will need to be utilized. One document that may prove helpful is an earlier paper by Freedman and Hagopian entitled "Water Use Planning - Boston Harbor" (c. 1986). Also, because the setback issue is addressed only briefly and indirectly in the literature to date, some original research is required to support the reduced distances proposed. One instructive task in this regard would be to assemble relevant information about

the operational experience of existing water-transportation facilities which may be comparable to those proposed at Yard's End and are located immediately adjacent to nonwater-dependent buildings (e.g. at Rowes Wharf and Commonwealth Pier).

2. Wind/Shadow Mitigation at Yard's End

2 The program to mitigate adverse wind and shadow effects in Yard's End must contain considerably greater detail, both in terms of a master planning level of impact analysis and in terms of the standards, guidelines, and documentation procedures that will be employed in determining that the waterfront environment will be conducive to pedestrian activity.

While the DSEIR includes substantial text on the subject of wind and shadow effects, very little of this material can be considered impact analysis of the kind normally carried out through the MEPA process. In order for these waterways issues to be adequately addressed on a master plan basis, as required by the Secretary's project change letter dated January 2, 1991, further information is needed beyond the brief preliminary discussions of pp.190-191 and 199-200. To begin with, since both of these sections make reference to alternative massing studies and certain design modifications that have already occurred, it is reasonable to presume that additional wind/shadow analyses resulting from this work can be reported. Second, baseline conditions along Harborwalk and at other public open spaces at Yard's End need to be more fully described. The localized wind climate, for example, should be more specifically characterized by relating shoreline orientations to applicable portions of the wind rose diagram of Figure 60, and by presenting any monitoring data or other actual measurements available for this segment of the Boston shoreline (including any previous Article 31 reviews on nearby project sites). Finally, a wind tunnel study (comprising at least the erosion technique) should be carried out for Yard's End in order to identify any pedestrian spaces where the BRA gust criterion may be violated, with particular attention to the major new plaza serving the Aquarium and to the portion of the double interpretive loop that passes along the Little Mystic Channel. The DSEIR provides no assurances as to whether an wind tunnel study will be carried out at all, or in such a manner that the wind implications of the full-build scenario in the area can be understood before individual projects commence.

A second major objective of MEPA proceedings relative to the Navy Yard, pursuant to the Secretary's approval of the Boston Harborpark Plan dated May 22, 1991, is to incorporate into that plan a "special mitigation program" to ensure that wind, shadow, and other conditions of the ground level environment will be conducive to public use and enjoyment in the environs of the new Aquarium. The intent of this requirement was not simply to elicit a description of the methodology of impact analysis employed by the

City, which has been a familiar component of project EIR's for a number of years now. Rather, the stated purpose was to establish a two-part protocol for making explicit decisions about building size and configuration, consisting of:

*"standards, guidelines, and other parameters to serve as a framework for reaching appropriate mitigation decisions"; and

*"a procedure for documenting the application of such framework to individual projects, in reasonable detail and in terms of objectives and issues that were identified and their prioritization, the design options considered, and the evaluation of tradeoffs among the design options which led to the choice of specific mitigation measures".

The DSEIR contains a good deal of useful background information on wind and shadow phenomena and generic mitigation techniques, but it offers essentially nothing in the way of decision parameters and documentation procedures of the type contemplated by the above mandate of the Secretary. The shadow discussion, for example, says only that mitigation decisions are the result of two basic steps: that of determining whether public spaces will be shaded for "an unacceptable length of time during the day" (p.194); and then requiring proponents to identify and analyze design modifications "when adverse shadow effects are predicted" (p.195). As to what is considered unacceptable and adverse under what circumstances, the report provides no elaboration.

The same holds true for the discussion of wind impact mitigation, which at least identifies two objective thresholds--the BRA guidance level and the Melbourne comfort criteria. However, these are portrayed only as tools to organize impact information to determine the need for mitigation, and the DSEIR gives no indication as to how that information influences determinations of acceptable wind levels. It is our understanding that the City has recently codified wind standards in another context (the new zoning ordinance for the Fort Point Waterfront), the structure of which is based on distinctions between building egress paths, shopping areas, strolling areas, and open-air restaurants. The DSEIR does not explain why the same cannot or should not be done at Yard's End, in order to ensure that the quality of the ground-level pedestrian environment matches that of the preeminent Aquarium facility it will surround.

3 3. Regulatory Conformance of Other Plan Components

For waterfront areas outside of Yard's End, the Navy Yard Master Plan generally seems to be in conformance with applicable requirements of the DEP waterways regulations and the Secretary's recent approval of the Boston Harborpark Plan. There are three important exceptions, however, which in our judgement warrant analysis of alternative or modified development scenarios. These are as follows:

## LETTER #6 - MASSACHUSETTS COASTAL ZONE MANAGEMENT OFFICE

**Comment #1**

***Topic:*** *Vessel-Related Use Program*

**Comment:** The presentation of the vessel-related use program is confusing in places, lacks specific data and analysis, and does not sufficiently relate building setbacks to the development requirements of proposed water transportation facilities.

**Response:** See response to Comment #12 of Letter 1, the DSEIR Certificate.

**Comment #2**

***Topic:*** *Wind/Shadow Mitigation at Yard's End*

**Comment:** The program to mitigate adverse wind and shadow effects in Yard's End must contain considerably greater detail, both in terms of a master planning level of impact analysis and in terms of the standards, guidelines, and documentation procedures that will be employed in determining that the waterfront environment will be conductive to pedestrian activity.

**Response:** See response to Comment #13 of Letter 1, the DSEIR Certificate.

**Comment #3**

***Topic:*** *Regulatory Conformance of Other Plan Components*

**Comment:** For waterfront areas outside of Yard's End, the Navy Yard's Master Plan generally seems to be in conformance with applicable requirements of the DEP waterways regulations and the Secretary's recent approval of the Boston Harborpark Plan. There are three important exceptions, however, which in our judgement warrant analysis of alternative or modified development scenario. These are:

a. Pier 5 - The 110-unit housing project has not been altered despite the fact that the regulatory status of the site has changed;

b. Building 114 - The building will become 125 feet taller and contain parking although inconsistent with waterways standards governing height and ground floor use;

c. Double Interpretive Loop - All public exhibits and attractions appear to be outdoor facilities and no special uses of any kind have been programmed for piers.

**Response:**

3a. Pier 5 will be addressed in the context of a separate EIR.

3b. See response to Comment #15 of Letter 1, the DSEIR Certificate.

3c. See response to Comment #16 of Letter 1, the DSEIR Certificate.

LETTER 7

City of Boston
e Environment
Department

ıymond L. Flynn
Mayor

aine M. Downey
Director

ı City Hall/Room 805
. Massachusetts 02201
25-4416 or 725-3850

July 26, 199_

RECEIVED
JUL 29 1991
MEPA

Secretary Susan Tierney
Executive Office of Environmental Affairs
100 Cambridge Street, 20th Floor
Boston, MA 02202

Attn: Bill Gage
RE: EOEA # 2383, Charlestown Navy Yard, Boston Draft Supplemental Environmental Impact Report ("DSEIR")

Dear Secretary Tierney:

The City of Boston Environment Department has reviewed the proposed redevelopment project cited above and hereby submits the following comments in response thereto:

The submission of the DSEIR for the Charlestown Navy Yard Redevelopment fulfills one of the conditions required by the Secretary's determination on the Notice of Project Change for the Charlestown Navy Yard Redevelopment project issued on January 2, 1991. It is my belief that the DSEIR adequately complies with the Secretary's requirement for further study of traffic, air quality, infrastructure, historic preservation and waterways impacts at the master plan level. The increase in total development by approximately 8% or 363,000 square feet does not significantly increase the studied impacts.

The benefits of the proposal are numerous. The new Aquarium proposal at Yard's End will provide residents with a new landmark waterfront attraction and park. The interplay of the new Aquarium , the USS Constitution and the other important historical resources of the Navy Yard through the development of the Double Interpretive Loop will restore the economic vibrancy of the Navy Yard. Yet, it is important that these historic resources are protected as expressed by the revised guidelines of the Massachusetts Historical
1 Commission and as addressed by the comments of the Boston Landmarks Commission.

The Environment Department looks forward to the enactment of this project and the further project specific review as required by the Secretary's determination of January 2, 1991.

Sincerely,

Lorraine M. Downey

Lorraine M. Downey
Director

## LETTER 7 - CITY OF BOSTON, ENVIRONMENT DEPARTMENT

**Comment #1**

*Topic:* *Historic Resources*

**Comment:** It is important that historic resources are protected as expressed by the revised guidelines of the Massachusetts Historical Commission and as addressed by the comments of the Boston Landmarks Commission.

**Response:** Adherence to the revised design guidelines approved and signed by the Massachusetts Historical Commission and the President's Advisory Council on Historic Preservation will serve to protect the historic resources within the Navy Yard. These revised guidelines are included as Appendix A of the FSEIR.

LETTER 8


The Commonwealth of Massachusetts
Executive Office of Transportation & Construction
Office of the Secretary
10 Park Plaza, Room 3510
Boston, MA 02116-3969
Telephone 973-7000
TTY (617) 973-7306
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William F. Weld
Governor
Paul Cellucci
Lieutenant Governor
Richard L. Taylor
Secretary


RECEIVED
JUN 19
EPA

EOTC #:91-0643

| | | | |
|---|---|---|---|
| ( ) ENF | #_____ | (x) SUPP. DEIR | #2383 |
| ( ) DEIR | #_____ | ( ) SUPP. FEIR | #_____ |
| ( ) FEIR | #_____ | ( ) TRAF. STUDY | #_____ |
| ( ) PROJ. CHANGE | #_____ | ( ) OTHER | |

DATE RECEIVED: 6-26-91 COMMENTS DUE: 7-26-91

TOWN/CITY BOSTON, MASSACHUSETTS

PROJECT PROPONENT Boston Redevelopment Authority
One City Hall Square
Boston, MA 02201

PROJECT DESCRIPTION: CHARLESTOWN NAVY YARD, BOSTON, MA. The proposed project as amended to date, allows a total of 4,493,900 s.f. of rehabilitation and new development, including office, retail, research, residential and recreational facilities. A total build-out of 4,956,900 s. is now proposed, including both rehabilitated and new space This represents an increase of 363,000 s.f. over the total approved in EOEA's 1978 Certificate.

COMMENTS: ( ) YES ( ) NO

DATE: 7/25/91

RICHARD L. TAYLOR,
SECRETARY

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William F. Weld
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Secretary

EOTC COMMENTS ON THE DSEIR FOR CHARLESTOWN NAVY YARD
CHARLESTOWN, MA
EOEA #2383

EOTC has reviewed the DSEIR for the proposed redevelopment of the Charlestown Navy Yard. In 1978, EOEA certified the FEIR for the Navy Yard proposal, which at that time would have allowed 4,593,900 square feet of build-out. Of that total, 2,328,800 square feet of redevelopment has occurred. In October of 1990, a Notice of Project Change (NOPC) was filed whereby a total build-out of 4,956,900 square feet is now proposed (an increase of 363,000 square feet) with the major modifications consisting of a 1.1 million square foot Biomedical Research Center and a relocated New England Aquarium. In response to that NOPC, MEPA required this DSEIR to be filed as well as separate ENFs for the Biomedical Research Center and the Aquarium.

EOTC has reviewed this DSEIR with particular focus on the issue of transportation planning. Due to the size, mix of use, and extended build-out of this redevelopment plan, this project is inextricably linked to the roadway and transit capacity of the area. The proponent has assumed the completion of both the Central Artery North Area (CANA) and Central Artery/Third Harbor Tunnel (CA/THT) projects, both of which projects would significantly improve traffic conditions in the Greater Boston region as well as in the immediate Charlestown area. As the proponent's traffic analysis is based on the assumption that these highway projects are completed prior to Navy Yard build-out, the proponent is aware that the future success of the Navy Yard redevelopment plan (in terms of adequately handling anticipated traffic generation) is directly related to the timely completion of these highway infrastructure projects.

The proponent's transit analysis indicates that the proposed redevelopment plan would generate a significant

increase in daily transit trips from the approved plan. Table 53 of the DSEIR shows that the proposed plan would create 2,473 additional water shuttle trips, 1,788 additional bus shuttle trips, and 1,600 additional rapid transit/commuter rail trips on a daily basis.

Although this transit analysis indicates that these increased rapid transit and commuter rail trips would be dispersed amongst the various MBTA lines such that adequate transit line capacity exists, EOTC is concerned with the potential water shuttle and bus shuttle impacts. The proponent states that "The existing water shuttle between Long Wharf and Pier #4 in the Navy Yard will be expanded in capacity and level of service. New water shuttle routes will be added to North Station, Logan Airport, and the Financial District/South Station area in the vicinity of Russia Wharf." The proponent has based this discussion of water shuttle routes and terminals from the 1989 "Boston Inner Harbor Water Transportation Study" undertaken by EOTC.

1 However, the proponent does not explain their role in expanding such water shuttle capacity or providing an adequate level of service. It is not clear if the proponent will be modifying the existing Pier 4 terminal to handle this heightened demand. For example, would additional waiting space, shelter and/or other amenities be provided, if demand warrants? As the proponent's transit analysis indicates that this project would have its largest impact on water shuttle services, the proponent should provide a commitment to help implement the expanded service necessary to meet this demand. This commitment should be in the form of an expanded Pier 4 terminal (since the potential exists for a physical expansion of Pier 4) as well as the expanded service itself.

2 The DSEIR also indicates that a new water shuttle dock would be provided as part of the Yard's End development and relocation of the New England Aquarium. From here, a high capacity water shuttle would be operated between the Aquarium and Central Wharf during the summer season. EOTC is pleased that the proponent is committed to the operation of this service, as water access from the downtown area will be a critical component of the Aquarium's marketing base. However, EOTC would like to see a permanent water shuttle terminal developed at this Pier 11 location, as outlined in the abovementioned 1989 Study. How will these water shuttle passengers be accomodated during the other seasons? As the 400-room hotel/conference center and the 1,100,000 square foot Biomedical Research Center are planned for Yard's End

construction, the development of a permanent water shuttle terminal at this location would handle the water transportation needs of biomedical employees, hotel patrons, as well as Aquarium visitors. The proponent should provide appropriate
2 access to this Pier 11 terminal and continue to work with EOTC in developing water transit service which is consistent with State transportation policy.

The proponent has provided an extensive commitment to the implementation of transportation demand reduction measures. A transportation coordinator will be hired to implement many strategies including the following: publish/disseminate a route map for shuttle bus and water services, implement a computerized rideshare program, provide for on-site MBTA pass sales with pass subsidies, encourage flexible work schedules, provide preferential parking for vanpools/carpools, and promote bicycle transportation. The proponent will also consolidate and/or coordinate the existing Navy Yard shuttle bus services to better handle increased ridership demands. The implementation of these and other strategies would serve to minimize traffic impacts on the area roadway network and are essential components for the overall success of this project.

EOTC is pleased that the proponent will be organizing a Transportation Management Association (TMA) in the Charlestown Navy Yard area. Such a TMA would be responsible for the coordination of all transportation services in the Yard and the setting of goals for levels of transit use and ridesharing. Participants would include the New England Aquarium, developers and tenants in the Yard, as well as the Boston Transportation Department and Boston Redevelopment Authority.

The proponent has listed the MBTA as a participant in this TMA. The proponent goes on to state that "the cost of TMA activities and proposed actions to achieve TMA goals will be apportioned among TMA members.." While the MBTA will continue to provide many transit services in the region which the Navy Yard would tie into, the MBTA should not be asked to be a financial participant in this TMA. However, the MBTA will continue to work with the proponent to resolve transportation issues as they present themselves.

As currently proposed, much of the redevelopment within the Navy Yard would occur simultaneously with the CANA and CA/THT reconstruction projects. As such, the proponent will be required to coordinate construction schedules, truck routing and staging areas between the Navy Yard Redevelopment project and these major roadway infrastructure projects. The DSEIR states

that the proponent will be required to prepare detailed Construction Management Plans for the City of Boston Transportation Department. The preparation of these Construction Management Plans should be done via close collaboration with the CANA and CA/THT project teams. Major components of these Plans will be the scheduling of deliveries and the designation of truck routes. These activities should be planned so as to minimize impacts on local neighborhood areas and be consistent with the CA/THT materials disposal program and construction traffic plans. EOTC requests that these Construction Management Plans be submitted for CA/THT project team review prior to being finalized.

3

7-23-91
mtv

## LETTER 8 - EXECUTIVE OFFICE OF TRANSPORTATION AND CONSTRUCTION

**Comment #1**

***Topic:*** *Water Transportation - Pier 4*

**Comment:** Would additional waiting space, shelter and/or other amenities be provided, if demand warrants? The proponent should provide a commitment to help implement the expanded service necessary to meet demand.

**Response:** In July 1991, improved facilities at Pier 4 were opened to the public. The improvements include, primarily, a fully accessible ramp system -- the only one in operation in the City of Boston and Boston Harbor -- and a larger floating dock. These improvements are evidence of the BRA's commitment to help implement improvements as necessary.

For additional information, see response to Comment #31 of Letter 1, the DSEIR Certificate.

**Comment #2**

***Topic:*** *Water Transportation - Parcel 5 (Site of Future New England Aquarium)*

**Comment:** How will these water shuttle passengers be accommodated during the other (off-peak) seasons? The proponent should provide appropriate access to this terminal and continue to work with EOTC in developing water transit service which is consistent with State transportation policy.

**Response:** See response to Comment #30 of Letter 1, the DSEIR Certificate. In addition, please note that (1) appropriate landside access will be provided via an easement to be reserved for public access and for the siting of landside facilities as required for the water transportation services, and (2) the BRA is committed to continuing to work with EOTC, MBTA, and other interested parties in developing water transit service which is consistent with State Transportation Policy. Recent evidence of the latter is the BRA's use of Mr. Charles Norris, a co-author of the two State-sponsored water transportation studies of Boston Harbor, as a planning consultant for the FSEIR.

**Comment #3**

***Topic:*** *Construction Management Plans*

**Comment:** EOTC requests that these Construction Management Plans be submitted for CA/THT project team review prior to being finalized.

**Response:** Comment is noted. Pursuant to the Boston Zoning Code, all development projects in the Navy Yard having a gross floor area of 10,000 square feet or greater are subject to Article 31 of the Boston Zoning Code, in which Section 31-6(c), Construction Management Element, requires that extensive information regarding construction transportation aspects of proposed development projects be submitted for review. This information is reviewed by the BRA and the BTD concurrently, and copies are sent to EOTC and other interested parties as a matter of practice. EOTC has been a commentor during many Article 31 development reviews in the City of Boston.

LETTER 9

RECEIVED
JUL 2 1991
MEPA

BOSTON
TRANSPORTATION
DEPARTMENT

ONE CITY HALL PLAZA-ROOM 721
BOSTON, MASSACHUSETTS 02201
(617) 725-4680 FAX (617) 523-4475

July 25, 1991

Susan Tierney, Secretary
Executive Office of Environmental Affairs
100 Cambridge St.
Boston, MA 02210

ATTN: MEPA Unit

RE: Draft Environmental Impact Report (DEIR), Charlestown Navy Yard Redevelopment

Dear Secretary Tierney:

I am in receipt of the above DEIR, and would like to submit the following comments.

The planning process for the Navy Yard, which has yielded this DEIR, has been thorough and has systematically involved the Charlestown community. The new proposed development, including the Aquarium and the biomedical research space, has been carefully planned and has the support of both agencies and citizens. The transportation analysis presented here is comprehensive and accurate.

The BTD supports the BRA in this planning process, and is committed to making the transportation system, services and facilities work to provide efficient transportation with minimal adverse effects, for residents, visitors and employees in and around the Navy Yard. In cooperation with the BRA, the MBTA, and other public agencies, as well as the private entities which will take part in the Navy Yard's redevelopment, the BTD will endeavor to ensure that appropriate traffic, transit, truck and pedestrian impact mitigation measures are taken.

In the DEIR the future conditions under the various development scenarios are well analyzed, and potential operational deficiencies are identified. The following comments on specific issues should be addressed in the FEIR.

RAYMOND L. FLYNN, MAYOR
RICHARD A. DIMINO, COMMISSIONER

1 o The BTD will review the proposed Transportation Management Organization in light of our experience with other TMO's in the city. The proposed structure, which includes agencies and resident groups as members, should perhaps be modified so that these bodies participate in an ex officio role.

2 o Expanded bus service should be considered to supplement the existing and planned shuttle services in the Navy Yard. The BTD will work with the BRA and the MBTA to ensure that new transit service is provided as Navy Yard development warrants. In Master Plan and Siting hearings, the MBTA has indicated a commitment to providing appropriate levels of service.

3 o Details of the design for the new Gate 6 at the Extension of 13th St. and Chelsea, as well as the removal of the signal and the prohibition of left turns into and out of the existing Gate 5, will be subject to the review and approval of the BTD.

4 o The proposed modification to the design of City Square is promising. In order to fully understand potential operational improvements at this critical intersection, the proposed geometry will be compared with that devised by Vanasse-Hangen-Brustlin in its work for the City. The BRA and Navy Yard developers should use their influence to encourage a solution to this design problem.

5 o Given the large volumes of pedestrians in the Navy Yard, and that the Harborwalk runs through it, pedestrian conditions will be a subject of the BTD's review of the project under the Article 31 Access Plan process. The BTD will require the BRA to model the distribution of pedestrian trips on the major corridors within and at the periphery of the site, and to identify potential deficiencies and obstacles.

Thank you for the opportunity to comment on this DEIR. I look forward to working with you, the BRA, the Charlestown neighborhood and all others involved to guide the Navy Yard toward its new uses.

Sincerely,

Richard A. Dimino
Commissioner

5177T

## LETTER 9 - BOSTON TRANSPORTATION DEPARTMENT

**Comment #1:**

*Topic:* *Transportation Management*

**Comment:** The BTD will review the proposed Transportation Management Organization in light of our experience with other TMOs in the city. The proposed structure, which includes agencies and resident groups as members, should perhaps be modified so that these bodies participate in an ex officio role.

**Response:** The BRA is committed to collaborating with BTD and other appropriate bodies in establishing the TMA/TMO for the Charlestown Navy Yard Redevelopment (see Table 57 in the DSEIR).

Given the importance of the Navy Yard TMA to the City of Boston and surrounding areas, the BRA plans to submit a formal application to the U.S. Department of Transportation for funding to seed the organization of the TMA.

**Comment #2:**

*Topic:* *Public Transit*

**Comment:** Expanded bus service should be considered to supplement the existing and planned shuttle services in the Navy Yard. The BTD will work with the BRA and the MBTA to ensure that new transit service is provided as Navy Yard development warrants. In Master Plan and Siting hearings, the MBTA has indicated a commitment to providing appropriate levels of service.

**Response:** See response to Comment #40 of Letter 1, the DSEIR Certificate.

**Comment #3:**

*Topic:* *Gate 6*

**Comment:** Details of the design for the new Gate 6 at the Extension of 13th Street and Chelsea [Street], as well as the removal of the signal and the prohibition of left turns into and out of the existing Gate 5, will be subject to the review and approval of the BTD.

**Response:** The BRA is committed to working with BTD throughout the implementation of the Gate 6 improvements and any related work. The Gate 6 improvements were included in Table 57, Transportation Program Summary, in the DSEIR.

**Comment #4:**

*Topic:* *City Square*

**Comment:** The proposed modification to the design of City Square is promising. In order to fully understand potential operational improvements at this critical intersection, the proposed geometry will be compared with that devised by Vanasse Hangen Brustlin [Inc.] in its work for the City. The BRA and Navy Yard developers should use their influence to encourage a solution to this design problem.

**Response:** See responses to Comments #21 and #28 of Letter 1, the DSEIR Certificate.

**Comment #5:**

*Topic:* *Pedestrian Access Plan*

**Comment:** Given the large volumes of pedestrians in the Navy Yard, and that the Harborwalk runs through it, pedestrian conditions will be a subject of the BTD's review of the project under the Article 31 Access Plan process. The BTD will require the BRA to model the distribution of pedestrian trips on the major corridors within and at the periphery of the site, and to identify potential deficiencies and obstacles.

**Response:** An analysis of pedestrian capacity on existing major corridors within the Charlestown Navy Yard is included in the response to Comment #32 of the DSEIR Certificate (Letter 1). See also the attached letter, dated August 6, 1991, from the Boston Transportation Department to the MEPA Office, which clarified the BTD comment letter regarding a pedestrian access plan.

BOSTON
TRANSPORTATION
DEPARTMENT

ONE CITY HALL PLAZA ROOM [illegible]
BOSTON, MASSACHUSETTS 02201
(617) 725-4680 FAX (617) [illegible]

August 6, 1991

Mr. William T. Gage
Associate Environmentalist, MEPA Unit
Executive Office of Environmental Affairs
100 Cambridge Street
Boston, MA 02202

RE: Draft Supplemental Environmental Impact Report (DSEIR), Charlestown Navy Yard Redevelopment

Dear Mr. Gage:

The purpose of this letter is to clarify a comment in our letter of July 25 summarizing our review of the Draft Supplemental Environmental Impact Report (DSEIR) for the Charlestown Navy Yard Redevelopment.

Regarding pedestrian conditions, the BTD letter did not mean to imply a pedestrian access plan for the entire Navy Yard should be prepared for review at this time as part of the FSEIR. BTD will require the pedestrian access plan when development conditions in the Navy Yard warrant, and , in addition, BTD will review the proposed pedestrian environment for each project during the Article 31 Development Review process. We do feel, however, that the FSEIR should include an estimate of the capacity of the existing sidewalks along major corridors, and at the gates. This information will provide an important basis upon which subsequent project-specific analysis can be formulated.

Thank you for this opportunity to clarify our position regarding pedestrian access. Please feel free to call me if the Boston Transportation Department can be of further assistance.

Sincerely,

Richard A. Dimino
Commissioner

RAYMOND L. FLYNN, MAYOR
RICHARD A. DIMINO, COMMISSIONER

LETTER 10

191 Hamilton Street
Cambridge, Mass. 02139
July 24, 1991

Janet McCabe
Director, Environmental Review
Executive Office of Environmental Affairs
100 Cambridge Street
Boston, Mass. 02202

Subject : Comments on the Draft Supplemental EIR
for Charlestown Navy Yard EOEA # 02383

Dear Ms. McCabe,

The changes to the Navy yard involve an expansion of uses to a large urban area which has access from only two directions. Access from the west is circuitous, but may be preferred to the congestion likely at City Square, the access point from the south.

Generally, I think some of the changes are unfortunate. Moving the Aquarium to the Navy yard takes a site with at least Blue Line access and moves it to a site with "No-Line" access.

The nearest thing I could find to a discussion of future rapid transit service to the Navy Yard is page 108-110, which describes the overall transit plan in Boston and expected service levels on the various lines. I could not find any description of what actual transit service to and from the rapid transit lines connecting to the Navy Yard. The bus service amounts to Route No. 93 and numerous private bus shuttle services.

Can any of this be remotely considered as an adequate transit plan for access to the Navy Yard? Everything seems inevitably stacked in favor of auto access, especially through one point -- City Square. The result is a monstrously expansive City Square intersection, which is the arterial equivalent of Scheme Z. This "mitigated" intersection will have 17 lanes of traffic approaching it, just one shy of Scheme Z's 18 lanes crossing the Charles River. Given the history of Charlestown's City Square, and the pedestrian movements in the area, how can anyone be truly serious about the magnitude of this intersection? Like Scheme Z, it is just plain awful.

Deletion of the Traverse Street on-ramp simply made matters worse, but the latest designs for the Central Artery do have a functional equivalent of this ramp. Still, traffic studies have shown that City Square will be a relief value for much traffic coming in from I-93, as well as traffic destined for the Navy Yard. Will there be diversions, especially destabilizing ones which produce gridlock and long queues at City Square?

1 Recent newspaper clippings have shown a proposal for a circumferential transit line connecting South Station to the Grand Junction line in Cambridge and through Lechmere and Community College to the Navy Yard. However, I could find no reference in the SDEIR to this possible transit connection, where it would go, and what possible service it might offer. Indeed, it appears that this "Bioscience" line may be heavy on PR and light on substance. There should be a clear statement of the potentials for a light rail connection to the Navy Yard.

At least initially, a shuttle from Community College to the Navy Yard would make sense, and a sketch (to scale) should be included in the SFEIR showing possible routes. Clearly, the new designs for plans #5 and #8 should be considered, through the (formerly) Scheme Z interchange area. I had included a rail connection in my All-Tunnel Plan, but found that the Central Artery engineers adamantly refused to include any transit elements in their design plans. I feel there is a serious need to do multi-modal transportation planning in Charlestown.

One possible reduction in City Square congestion is to make the I-93 off-ramp into an underpass movement of City Square, with a local traffic U-turn move near the Navy Yard. This would remove Navy Yard and spillover traffic from City Square, but would add new turning movements nearer the Navy Yard. This tradeoff should be discussed in the Final Report.

The CANA construction has presented a special problem for analysis, since normally a reference point such as existing conditions is useful to indicate that the analysis has indeed been calibrated and also provides a measure of traffic growth in the area. I need to get a sense for the existing traffic in the area and how much new traffic would be expected, as well as how much would be trimmed by a good transit access program to the Navy Yard.

The best available measure appears to be the number of parking spaces, with an assumption of 3 trips per parking space. The 1991 total of 3,105 spaces implies 9,300 ADT, with the previously approved plan having 4,302 spaces or 12,900 ADT. The current proposal would require 5,430 spaces or 16,300 ADT. In other words, the old plan would mean a 39% increase in traffic generated, while the new plan means a 75% increase.

2 Any traffic congestion would tend to make drivers use Charlestown local streets to get to the Navy Yard. What sort of street pattern could be developed to discourage through traffic in dense areas of Charlestown, similar to the Beacon Hill street pattern which limits through moves?

During the Scheme Z traffic review, I found that the Artery traffic engineers were assigning 90% of the City Square traffic as coming from the South or Downtown Artery direction. This result is in contrast to the assumptions in Figure 36, which

show a maximum of 44% (and probably more like 20-25%) of traffic coming from the South. How can these differing results be explained or reconciled? If the Artery assumptions are in error (as I expect they are), what can the Navy Yard EIR tell them in terms of traffic and its distribution at City Square?

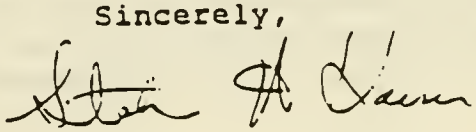
I am very unhappy with the presentation of results in terms of LOS and delay. Why were V/C figures not consistently presented, since these give us a better grasp of how severely overloaded an intersection is? (I finally found the City Square results in Table 60) The calculation sheets show year 2005 conditions of 1.15 V/C in the morning peak and 1.31 V/C in the afternoon peak, which are within 2-10% of the CA/T results. Are the demand volumes similar to the Central Artery analysis?

The capacity calculations at City Square show no pedestrian phases for crossing the Northbound and Southbound roadways. How will people get from old Charlestown to the waterfront, or to Paul Revere Park? Is there a pedestrian circulation master plan for the area, especially showing any sort of detail for pedestrians at City Square? If pedestrians are getting the short end of the stick (as they usually do), why must we perpetuate such planning bias?

The proposed Medford Street bypass appears briefly on page 108 and Figure 34. How serious is this proposal? Is it essential for good access to the Navy Yard? Is it a truck route as noted on page 108, or a general traffic relief for the Navy Yard? How wide will it be and how much vegetation and/or buildings would be removed for its construction? Are the rail tracks fully abandoned? What happens to the access roads which today cross the old tracks and intersect Medford Street? Would this new road tend to stimulate development and thus generate new traffic? What type of intersection is proposed near Sullivan Square and the fire station?

The bulk of the report could have been reduced significantly if it were printed on both sides of the paper, rather than just one. The project is large, and the report is not easy to read. How difficult would it be to run a computer indexing program, so that anyone wishing to find out about specific issues, such as the Aquarium or Medford Street, could find the references in the EIR? As it is, many people will not read the EIR -- because they can't.

Sincerely,



Stephen H. Kaiser, PhD
Traffic & Transportation Engineer

## LETTER 10 - STEPHEN H. KAISER

**Comment #1:**

***Topic:*** *Public Transit*

**Comment:** There should be a clear statement of the potentials for a light rail connection to the Navy Yard. At least initially, a shuttle from Community College to the Navy Yard would make sense, and a sketch (to scale) should be included in the SFEIR [sic] showing possible routes.

**Response:** See response to Comment #38 of Letter 1, the DSEIR Certificate.

**Comment #2:**

***Topic:*** *Charlestown Local Streets*

**Comment:** What sort of street pattern could be developed to discourage through traffic in dense areas of Charlestown, similar to the Beacon Hill street pattern which limits through moves?

**Response:** See response to Comment #27 of Letter 1, the DSEIR Certificate.

**Comment #3:**

***Topic:*** *Pedestrian Access at City Square*

**Comment:** The capacity calculations at City Square show no pedestrian phases for crossing the Northbound and Southbound roadways. How will people get from old Charlestown to the waterfront, or to Paul Revere Park? Is there a pedestrian circulation master plan for the area, especially showing any sort of detail for pedestrians at City Square?

**Response:** Analysis assumptions for City Square were based on the latest design as provided by the Bechtel/Parsons Brinckerhoff CA/T team.

As proposed by the CA/T Project, crosswalks and traffic signal phasing for pedestrians will be provided across the eastbound (I-93 on- and off-ramps) and westbound (Chelsea Street) approaches to City Square. The northbound Washington Street approach does not include a crosswalk because the existing Water Street underpass under North Washington Street will be maintained and open to pedestrians. No crosswalk was provided on the southbound Rutherford Avenue approach because pedestrian movements should not be encouraged across this wide approach, and because minimal demand for this movement is expected.

For additional information, see the response to Comment #33 of Letter 1, the DSEIR Certificate.

LETTER 11

PORT. TEN PARK PLAZA. BOSTON. MA 02116-3971. (617) 973-5500 TELEX 94-0365

massport

to MEPA

26 July 1991

Secretary Susan Tierney
Executive Office of Environmental Affairs
100 Cambridge Street, 14th Floor
Boston, MA 02108

Re: E.O.E.A. #02383
Charlestown Navy Yard Redevelopment
Draft Supplemental Environmental Impact Report

Dear Secretary Tierney:

The Massachusetts Port Authority (Massport) is pleased to recommend certification of the Boston Redevelopment Authority's Draft Environmental Impact Report concerning the Charlestown Navy Yard's Redevelopment Plan. Massport's overall assessment of the proposed redevelopment plan is overwhelmingly positive. We commend the BRA on their clarity of vision, quality of analysis, and creativity in addressing issues. We believe the plan set out is an exciting blueprint for action. As neighbors to the Navy Yard, we look forward to sharing in the renewed vitality which these planning efforts are sure to generate.

The proposed plan indicates that Navy Yard redevelopment and the adjacent Moran Terminal can comfortably co-exist. While we believe this is true, as owner/operator of this public terminal -- one which handles much of the containerized cargo moving through the Port of Boston -- we need to safeguard its functional viability. To this end, we have discussed a few small mitigation measures with the BRA which it has agreed to undertake; they include the following:

1 - take satisfactory steps to safeguard pedestrian safety at the intersection of Terminal and Chelsea Streets by committing to the constructon of pedestrian barriers and the posting of appropriate signage; and,

2 - manage traffic at the Terminal/Chelsea Street intersection to help address a pre-existing traffic condition and ensure that this intersection functions safely and efficiently for both Moran trucks and other vehicles.

MASSPORT. TEN PARK PLAZA. BOSTON. MA 02116-3971. (617) 973-5500 TELEX 94-0365



In addition, the BRA has prepared a vessel-related programming plan that presents water-side uses consistent with Massport's long-held view that the Little Mystic Channel be used for large boat layover and docking purposes, and not for a small boat marina.

The BRA plan addresses peak season parking demand by proposing the creation of a seasonal overflow parking lot on a Terminal Street. While the parcel is identified as a BRA land holding, it is leased by Massport. We are confident that the BRA and Massport will achieve speedy resolution of a new lease agreement to successfully implement the plan.

Again, I would like to reiterate Massport's strong support for the proposed plan. As a project neighbor and champion of water dependent industrial interests in Boston harbor, Massport believes that the plan appropriately balances the need for public access and water-dependent-industrial activity. We look forward to working with the BRA to ensure that the urban amenity and economic activity envisioned in the plan soon become a reality.

Sincerely,

Alden S. Raine
Executive Director

ASR/BR/br
5884R



OPERATING. BOSTON LOGAN INTERNATIONAL AIRPORT • PORT OF BOSTON GENERAL CARGO AND PASSENGER TERMINALS • TOBIN MEMORIAL BRIDGE • HANSCOM FIELD • BOSTON FISH PIER • COMMONWEALTH PIER (SITE OF WORLD TRADE CENTER BOSTON)

## LETTER 11- MASSACHUSETTS PORT AUTHORITY (MASSPORT)

**Comment #1:**

***Topic:*** *Pedestrian Safety in the vicinity of the Moran Container Terminal entrance*

**Comment:** Take satisfactory steps to safeguard pedestrian safety at the intersection of Terminal and Chelsea Streets by committing to the construction of pedestrian barriers and the posting of appropriate signage.

**Response:** In an effort to minimize conflicts of pedestrians, cars, and trucks at Chelsea and Terminal Streets, the TMA will consider opening the proposed overflow parking lot at mid-morning, i.e., approximately 1-1/2 to 2 hours after the opening of the Moran Container Terminal entrance, on weekdays during the peak summer period. Since the Terminal is closed weekday holidays and weekends, the overflow lot opening time on those days during the peak summer period is not constrained, and will be adjusted as necessary to meet demand.

In addition, a foot patrol or safety/crossing guard will be provided to guide pedestrians circulating between the overflow parking lot and Gate 6 during all days of use in the peak summer period.

**Comment #2:**

***Topic:*** *Vehicular Safety in the vicinity of the Moran Container Terminal entrance*

**Comment:** Manage traffic at the Terminal/Chelsea Street intersection to help address a pre-existing traffic condition and ensure that this intersection functions safely and efficiently for both Moran trucks and other vehicles.

**Response:** See response to Comment #23 of Letter 1, the DSEIR Certificate.

LETTER 12

ASTRID C. GLYNN
ATTORNEY AT LAW
8TH FLOOR
ONE STATE STREET
BOSTON, MASSACHUSETTS 02109
TELEPHONE (617) 523-9322
TELECOPIER (617) 523-0381

July 25, 1991

Susan Tierney, Secretary
Executive Office of
Environmental Affairs
20th Floor
100 Cambridge Street
Boston, MA 02202

Re: Charlestown Navy Yard Redevelopment
Draft Supplemental Environmental
Impact Report/EOEA #02383

Dear Secretary Tierney:

I am writing on behalf of the Boston Shipping Association, Inc. to request that you find that the above referenced DSEIR adequately and properly complies with the requirements of 301 CMR 11.08.

The Boston Shipping Association has two reasons to be interested in this project. First, as a member of the Harborpark Advisory Committee we were closely concerned with the development of the zoning and Master Plan for the Yard, particularly the provisions creating Pier 11 as a facility for naval vessels and other visiting ships. Second, the Charlestown Navy Yard is directly adjacent to the Charlestown Designated Port Area.

With respect to Pier 11 we welcome the DSEIR's statements that that berth will be made available for visiting naval vessels. Lying at the end of the "Double Interpretive Loop" vessel calls at Pier 11 will offer visitors and workers an opportunity to see first hand the modern descendants of the vessels that the Charlestown Navy Yard once built - in essence, to trace naval history from the U.S.S. Constitution through 19th century and early 20th century technological innovations to

present day warships. To this end we hope that development of the Yard will include a program to attract visiting naval vessels to the Yard and that the physical facilities of Pier 11 will be improved and maintained to host such ships. The zoned setback on Parcel 5 (65' minimum and 75' average) was created to encourage those activities and we trust that the owners and occupiers of the Yard will actively cooperate in bringing those plans to fruition.

With respect to the projected impacts on the adjoining Designated Port Area, the BRA is to be congratulated for structuring a Plan that recognizes and avoids possible conflicts. Specifically, the transportation section of the DSEIR makes it clear that Navy Yard automobile traffic will not rely on the truck route servicing the Moran Terminal and the other portions of the Charlestown Designated Port Area. This commitment is crucial since, as has often been discussed in the context of the South Boston Designated Port Area, general traffic clogging the truck routes that service the Port can be just as damaging to maritime industry as direct displacement. Whether the Medford Street By-Pass, now being planned as a separate improvement for use by heavy vehicles, is built in the future or whether the Designated Port Area trucks continue to rely on Medford Street/Terminal Street for access along the Mystic River side of Charlestown, development in the Navy Yard will have to be keyed to avoiding roadway conflicts with landside routes serving the Mystic River terminals. The DSEIR indicates that this goal can be achieved through the mix of uses and the transportation improvements proposed for the Navy Yard. In this respect, as well as in its treatment of the water's edge of Parcel 7, the BRA has presented a Plan consistent with its previous adoption of Maritime Economy Reserve zone status for the nearby Mystic River terminals and warehouses.

There are, however, some points which could beneficially be clarified. They are as follows:

1. While somewhat unavoidable in a document which is a Master Plan more than a proposal for a specific building, the DSEIR relies quite heavily on the passive voice in describing transportation mitigation steps. To some extent this is cured by Table 57 which contains a listing of several Transportation Program Elements, the status/timing of each, the party responsible for the particular element and the projected

cost of the measure. However, the data given is incomplete or caveated in many instances. Further and firmer information should be provided on these points as this project proceeds through the permitting process.

2 · In executing its plans to make Chelsea Street a pleasant tree lined street, the project proponent should remember that Chelsea Street is also a primary truck route (and queuing area) connecting Terminal Street with City Square and the regional highways. For this reason the creation of Gate 6 and the nearby pedestrian crossings will have to receive detailed attention to assure both public safety and the smooth flow of through truck traffic.

3 · While the DSEIR's discussion of the Little Mystic overflow parking lot indicates a commendable sensitivity to the need to avoid operational conflicts with truck access, particularly queuing at Moran Terminal, more work should be done to assure operational compatibility. For instance, concern has been voiced in the past about the vertical geometry of the bridge over the Little Mystic and use of the proposed overflow lot. The responsible agencies will have to pay close attention to this matter. Similarly, the need to avoid conflicts with truck queues at the Moran Terminal gate is essential and, as development review proceeds, the DSEIR's general statements on this issue should be buttressed with a more definite set of criteria for operation of the overflow lot.

· Location of a water shuttle dock (or any other small vessel float system) at Pier 11 would be an impediment to use of that berth by large naval vessels. The concept of locating a water shuttle stop at Pier 11 in the Yard originated while plans for Parcels 4, 5, 6 and 7 were still in flux. Indeed, the October 1989 Water Transportation Study specifically stated that the concept of locating such service at Pier 11 was "dependent on the type and quantity of

4 development that eventually occurs". Plainly, and as has been generally acknowledged by the study's authors, location of a water shuttle at or near Pier 10 is far preferable, particularly given the location of the Hotel and Aquarium, because it will serve a larger cachement area and a greater number of people within a ten minute walking distance. The FSEIR should abandon the option of placing a small vessel dock anywhere along Pier 11 and proceed with the plans for locating water shuttle facilities at Pier 10, a far more advantageous location for such a use.

5. Since development of Pier 11 will soon pass to others (particularly the Aquarium), the BRA should specify what programming, operational and structural criteria/controls will be established to assure that Pier 11 is both available for and welcoming to any visiting naval vessels.

The redevelopment of the Charlestown Navy Yard is an ambitious and laudable example of waterfront revitalization. The Boston Shipping Association, Inc. commends the BRA on its work to date and looks forward to execution of the Plan presented. To that end we ask that you certify the present submission as adequately and properly complying with MEPA and permit the proponent to continue with this worthwhile project in an FSEIR.

Very truly yours,

Astrid C. Glynn

ACG:pm

cc: Paul Barrett, BRA
Don Klabin, BRA

navyyard\tierney.ltr

## LETTER 12 - BOSTON SHIPPING ASSOCIATION, INC. (Astrid C. Glynn)

**Comment #1:**

***Topic:*** *Transportation Program Summary*

**Comment:** Table 57 contains a listing of several Transportation Program Elements, the status/timing of each, the party responsible for the particular element and the projected cost of the measure. Further and firmer information should be provided on these points as this project proceeds through the permitting process.

**Response:** Comment is noted. Since (1) the organization of a Transportation Management Association has been proposed in order to guide further transportation planning, (2) there is a substantial surplus of parking spaces at existing Navy Yard parking facilities, and (3) the MBTA has committed to improvements as conditions warrant, it is premature to provide additional detail at this time.

**Comment #2:**

***Topic:*** *Gate 6*

**Comment:** The creation of Gate 6 and the nearby pedestrian crossings will have to receive detailed attention to assure both public safety and the smooth flow of through truck traffic.

**Response:** See responses to Comments #23 and #24 of Letter #1, the DSEIR Certificate.

**Comment #3:**

***Topic:*** *Truck Queuing Adjacent to Little Mystic Parking Lot*

**Comment:** While the DSEIR's discussion of the Little Mystic overflow parking lot indicates a commendable sensitivity to the need to avoid operational conflicts with truck access, particularly queuing at Moran Terminal, more work should be done to assure operational compatibility.

**Response:** See the response to Comment #1 of Massport (Letter 11).

**Comment #4:**

***Topic:*** *Pier 11*

**Comment:** The FSEIR should abandon the option of placing a small vessel dock anywhere along Pier 11 and proceed with the plans for locating water shuttle facilities at Pier 10, a far more advantageous location for such a use.

**Response:** The FSEIR describes Pier 10 as the preferred location for the water shuttle facility at Yard's End. See responses to Comments #12 and #30 of Letter 1, the DSEIR Certificate, for additional detail.

**Comment #5:**

***Topic:*** *Pier 11*

**Comment:** The BRA should specify what programming, operational and structural criteria/controls will be established to assure that Pier 11 is both available for and welcoming to any visiting naval vessels.

**Response:** Requirements that the New England Aquarium manage and maintain the multi-purpose Pier 11 for its own use and for larger visiting vessels will be incorporated into the pier management plan. See response to Comment #9 of Letter 1, the DSEIR Certificate, for additional description of such plan.

The infrequent berthing of deep draft vessels could be given priority with sufficient advance notice of date and duration. Fees for docking would be commensurate with other deep draft locations such as the Boston Marine Industrial Park. Site management and rates would be subject to on-going review and guidance in accordance with the vessel-related use plan.

LETTER 13

he boston harbor association
for a clean, alive and accessible Boston Harbor

51 Sleeper St.
Boston, MA 02210-1248
Telephone (617) 330-1134

July 23, 1991

RECEIVED
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MEPA

Secretary Susan Tierney
Executive Office of Environmental Affairs
100 Cambridge Street
Boston, MA 02108

Re: Charlestown Navy Yard Redevelopment
EOEA #2383

Dear Secretary Tierney,

The Boston Harbor Association (TBHA) is an organization of a diverse mix of individuals and businesses who use and care about Boston Harbor and who have joined together for the purpose of achieving a clean, alive and accessible harbor through education, discussion, negotiation and action. TBHA's goals are to advocate for improved and expanded public access, the protection and expansion of maritime uses and a cleaner harbor environment.

TBHA views the Charlestown Navy Yard (CNY) as one of the truly great assets of Boston Harbor. The ongoing redevelopment of this area is essential to the continued vitality of the water's edge and will promote enhanced public access to the Harbor. The key components of this plan, as viewed by TBHA, are the use of the waters edge for a variety of water dependent activities, the incorporation of a new and enlarged New England Aquarium into the Yards End area, the orientation of the plan from the harbor landward and the provision of large areas of public open space and pier space.

TBHA strongly supports the plan, as it has strongly supported the Harborpark zoning and Municipal Harbor Plan with which this document is consistent. In order to ensure that the plan becomes a reality, the following comments are offered for consideration in the Final Supplemental EIR.

1. Abutting Maritime Industrial Uses

The Navy Yard at its northern end abuts an important deep draft maritime terminal area, including Mystic Pier No.1 and the J. F. Moran Container Terminal. This area, which is a

Designated Port Area and has been recently rezoned as a Maritime Economy Reserve District must be respected in the planning process for the Navy Yard. In general, the plan addresses these abutting uses by focusing potentially conflicting uses, including residential buildings and recreational boating facilities, in other areas of the CNY. TBHA supports the placement of less sensitive uses, such as office and research space
1 nearer to these marine industrial uses. In particular, it is important that the waterside uses along the entrance to the Little Mystic do not adversely affect the berthing of large deep draft vessels at Mystic Pier No.1.

In addition, there may be issues with regard to the increased automobile traffic along Medford Street/Terminal Street corridor. This is the primary access route for trucks serving the Designated Port Area. There are some potential safety problems associated with the mix of tourists and heavy trucks. The involved agencies should address
2 mechanisms to reduce potential automobile/truck conflicts and/or the need for intersection improvements near the Little Mystic bridge as development at the CNY moves forward.

The Little Mystic waterfront parcel, owned by the Boston Redevelopment Authority and leased to Massport as support for the Moran Terminal, is anticipated to be used for bus parking and seasonal overflow parking. TBHA has recently supported the re-zoning of this area to a Waterfront Service Zone, in recognition of the importance of this area as a transitional buffer zone between residential uses and heavy industry. In addition, this "forgotten" inlet of the harbor, which currently hosts one of the few launching ramps in Boston Harbor, has great potential for more active small boat uses. The use of this area
3 for parking for the Navy Yard should be coordinated with the longer term potential of this area for maritime and public access uses.

2. Chapter 91 Jurisdiction

TBHA looks to the Chapter 91 program to be one of the primary means of assuring the eventual implementation of the commitments for public facilities and improvements contained in the DSEIR. Towards this end, the Final SEIR needs to be more specific about the jurisdiction and applicability of the Chapter 91 program to each of the
4 components of the plan. Additional information needs to be provided regarding the historic mean high and low water marks, existing State Harbor lines, the limits of Commonwealth and private tidelands and the extent of jurisdiction under the current 91 regulations.

3. Pier Management Plan

The Charlestown Navy Yard possesses one of the greatest concentrations of usable piers in Boston Harbor. The number and length of its piers is one of the finest assets of the Navy Yard and defines much of its character and attraction. Yet, today, and in the proposed plan, there is an odd mix of public and private ownership, use and maintenance. TBHA has identified a number of concerns regarding the planning for the coordinated use and maintenance of these piers, including the need to provide a strong, coordinated management plan for the complex of piers. Much as the Navy Yard requires a coordinated public and private effort to address parking and transportation issues, the management and use of these piers requires a similar coordinated approach. We would note the "stand-off" on the use of the expensive, handicapped accessible, Pier 4 water shuttle dock, which has only recently been resolved due to the collapse of the former shuttle dock.

5

TBHA recommends that the Final SEIR include a proposed pier management plan that would address the overall use, development, maintenance, insurance and operation of the CNY piers. This plan should address in particular the need for:

(a) Two public landings of at least 150 feet in length, to be located in the Pier 3 or 4 area and at Pier 10. These landings should be free of charge and for short term (15 -30 minutes) drop off/pick up use of recreational boaters.

(b) Defined plans for the accommodation of large Naval ships or other large visiting vessels at Pier 11, complete with appropriate setbacks, dockside improvements and support, commensurate with the occasional use of this area for "VIP" ships.

(c) Location of the water shuttle dock and support facilities at the corner of Pier 10 where patrons of the hotel and aquarium, as well as other Navy Yard developments, can best gain access to the dock.

(d) Reasonable provisions for a variety of public water related events on the piers, including Harborfest, Classic and Antique Boat Festival, Tugboat Muster and the like. TBHA suggests that public pier space be available for these uses free of charge, to enliven the waterfront.

In summary, the CNY master plan DSEIR does many things right. It orients the public and the development toward the water and toward the sunny, open spaces along the south side, respects the abutting maritime industrial uses, enlivens the waterfront with an appropriate mix of public and private uses, supports the relocation and expansion of one of Boston's most important institutions, the New England Aquarium, and generally sets

forth an appropriate direction for the future of this important public resource. I urge your approval of this document and consideration of our suggestions and comments.

Very truly yours,

Robert Kenney
President

## LETTER 13 - THE BOSTON HARBOR ASSOCIATION

**Comment #1**

***Topic:*** *Abutting Maritime Industrial Uses*

**Comment:** It is important that the waterside uses along the entrance to the Little Mystic Channel do not adversely affect the berthing of large deep draft vessels at Mystic Pier No. 1.

**Response:** TBHA's comment supports restricting the use of the Little Mystic Channel by vessels not utilizing the Mystic River Designated Port Area. See response to Comment #12 of Letter 1, the DSEIR Certificate.

**Comment #2**

***Topic:*** *Automobile Traffic Along Medford Street/Terminal Street Corridor*

**Comment:** The involved agencies should address mechanisms to reduce potential automobile/truck conflicts and/or the need for intersection improvements near the Little Mystic Bridge as development at the CNY moves forward.

**Response:** See response to Comment #23 of Letter 1, the DSEIR Certificate.

**Comment #3**

***Topic:*** *BRA-Owned Little Mystic Waterfront Parcel*

**Comment:** The use of this area for parking for the Navy Yard should be coordinated with the long-term potential of this area for maritime and public access uses.

**Response:** See responses to Comments #36 and #12 of Letter 1, the DSEIR Certificate.

The existing boat ramp and associated parking area will remain in use and be made safer and more accessible by the lighting and other improvements to be implemented as part of the overflow parking lot plan.

Public access to the perimeter of the Little Mystic Channel will be enhanced by the proposed extension of Harborwalk to the overflow lot, via Gate 6, the proposed pedestrian walkway at the north side of the Little Mystic Bridge, and the stair and ramp at the end of the bridge.

**Comment #4**

***Topic:*** *Chapter 91 Jurisdiction*

**Comment:** The Final SEIR needs to be more specific about the jurisdiction and applicability of the Chapter 91 program to each of the components of plan. Additional information needs to be provided regarding the historic mean high and low water marks, existing State Harbor lines, the limits of Commonwealth and private tidelands, and the extent of jurisdiction under the current Chapter 91 regulations.

**Response:** See response to Comment #8 of Letter 1, the DSEIR Certificate.

**Comment #5**

***Topic:*** *Pier Management Plan*

**Comment:** As much as the Navy Yard requires a coordinated public and private effort to address parking and transportation issues, the management and use of these piers requires a similar coordinated approach. TBHA recommends that the Final SEIR include a proposed management plan that would address the overall use, development, maintenance, insurance, and operation of the CNY piers.

**Response:** See response to Comment #9 of Letter 1, the DSEIR Certificate.

LETTER 14

MASSACHUSETTS WATER RESOURCES AUTHORITY
Charlestown Navy Yard
100 First Avenue
Boston, Massachusetts 02129

Telephone: (617) 242-6000
Facsimile: (617) 241-6070

July 26, 1991

RECEIVED
JUL 2 1991
MEPA

Susan Tierney, Secretary
Executive Office of Environmental Affairs
100 Cambridge Street
Boston, MA 02202

Attn: MEPA Unit

Re: EOEA No. 2383-Charlestown Navy Yard SDEIR, Boston

Dear Secretary Tierney:

Concerning the above-referenced Supplemental Draft Environmental Impact Report (SDEIR), we submit the following comments:

The project will increase water consumption by 572,400 gpd and wastewater flow by 520,200 gpd. The proponent states that no mitigation with respect to the MWRA system is considered to be necessary, based on the relative impact of the proposed development on the regional system.

An increase in wastewater flow of 520,200 gpd is not insignificant, especially when considered along with the development of several other sizable Boston area projects which will significantly increase wastewater flows to the MWRA's Deer Island Treatment Plant.

While it is not our intent to limit development and economic growth, it is in the best interests of the MWRA to encourage proponents of new projects to minimize wastewater flows and to incorporate mitigation measures wherever possible.

1 As strict adherence to the Massachusetts Plumbing Code is a requirement and not a mitigation measure, the MWRA suggests that the proponent investigate additional measures in order to minimize water use and wastewater flow (i.e., air-cooled or closed loop heating and air conditioning systems; water-efficient plantings and minimum turf areas; water saving techniques and equipment; etc.)

2 As indicated by the proponent, the redevelopment project includes research facilities. If any non-domestic waste (photo labs, x-rays, research and development labs, dry cleaners, etc.) is to be discharged to the sewer system, contact must be made with the TRAC Division of the MWRA in order to discuss pretreatment needs and to apply for an MWRA Sewer Use Discharge Permit.

3 Finally, in Table 67, the proponent's "Residential(2)" wastewater generation flows appear to be incorrect (should be 26,800 gpd; 24,200 gpd; 51,000 gpd; and 256,500 gpd).

We appreciate the opportunity to comment. Should you have any questions, please do not hesitate to call me at 242-0230, ext. 4804.

Very truly yours,

Katina N. Belezos, Project Engineer
Planning Program
Wastewater Engineering

KNB/ve

## LETTER 14 - MASSACHUSETTS WATER RESOURCES AUTHORITY (MWRA)

**Comment #1**

***Topic:*** *Mitigation Measures*

**Comment:** The MWRA suggests that the proponent investigate additional measures in order to minimize water use and wastewater flow.

**Response:** The BRA recognizes that strict adherence to the Massachusetts State Plumbing Code is a requirement and not a mitigation measure. The BRA also recognizes the desirability and benefits of implementing water saving measures beyond the requirements of the Plumbing Code, where appropriate. Additional conservation measures, such as the use of spring-loaded or time valve fixtures, air-cooled or closed loop heating and air conditioning systems, water-efficient plantings, etc., will be considered for the various future developments within the Navy Yard. In addition, the BRA will require proponents of the individual project developments to investigate the implementation of other water conservation measures, beyond the Plumbing Code requirements, as part of the Authority's project review requirements.

**Comment #2**

***Topic:*** *Pretreatment Requirements*

**Comment:** If any non-domestic waste is to be discharged to the sewer system, the MWRA must be contacted in order to discuss pretreatment needs and to apply for a MWRA Sewer Use Discharge Permit.

**Response:** It is anticipated that non-domestic waste water will be generated by the Biomedical Research Center development and may be generated also by other uses proposed for the Navy Yard. The MWRA will be contacted in order to discuss pretreatment needs and to apply for a MWRA Sewer Use Discharge Permit. The responsibility to contact the MWRA will rest with the project proponent/developer of the particular developments and uses which will generate the non-domestic waste. Compliance with all MWRA Industrial Sewer Use regulations will be required.

**Comment #3**

***Topic:*** *Wastewater Generation Flows*

**Comment:** In Table 67, the proponent's residential wastewater generation flows appear to be incorrect.

**Response:** A typographical error was made in Table 67 of the DSEIR. This table has been revised to indicate the correct residential wastewater generation flows. A corrected Table 67 is attached.

**Table 67** (Revised)

Summary of Estimated Wastewater Generation
Charlestown Navy Yard

Estimated Maximum Wastewater Generation in Gallons Per Day(1)

| Space Use | Existing Development | Master Plan Development | | | Total Development |
|---|---|---|---|---|---|
| | | Phase I | Phase II | Subtotal | |
| Residential(2) | 205,500 | 26,800 | 24,200 | 51,000 | 256,500 |
| Office | 25,900 | 2,200 | 1,800 | 4,000 | 29,900 |
| Retail (including restaurants)(3) | 23,100 | 6,900 | 4,200 | 11,100 | 34,200 |
| Research | 142,400 | 139,900 | 133,000 | 272,900 | 415,300 |
| Hotel | 0 | 51,000 | 0 | 51,000 | 51,000 |
| Cultural/ Recreational | 0 | 4,600 | 5,700 | 10,300 | 10,300 |
| Aquarium | 0 | 72,700 | 0 | 72,700 | 72,700 |
| Other Facilities of Public Accommodation(4) | 7,200 | 26,100 | 18,000 | 44,100 | 51,300 |
| Marina | 5,600 | 3,100 | 0 | 3,100 | 8,700 |
| TOTALS | 409,700 | 333,300 | 186,900 | 520,200 | 929,900 |

(1) Estimates are based on 310CMR15.00, Title 5 factors for sewage generation except for research facilities which are based on actual water use data and marina slips which are based on factors used by the Commonwealth of Virginia.
(2) 2 bedrooms average per residence assumed.
(3) 2/3 retail, 1/3 restaurant use assumed.
(4) 1/2 restaurant use assumed.

gpd - gallons per day
gpm - gallons per minute

CNYEIR5/TABLE67.CHT
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LETTER 15

**Boston Water and Sewer Commission**

425 Summer Street
Boston, MA 02210-1700
617-330-9400
Fax 617-330-5167

July 26, 1991

Secretary Susan F. Tierney
Executive Office of Environmental Affairs
100 Cambridge Street, 14th Floor
Boston, MA 02108

Re: Charlestown Navy Yard Redevelopment-DSEIR
EOEA #2383

Dear Secretary Tierney:

The Boston Water and Sewer Commission has reviewed the Draft Supplemental Environmental Impact Report (DSEIR) for the proposed Charlestown Navy Yard Redevelopment project.

A Final Environmental Impact Report for the proposed redevelopment of the Charlestown Navy Yard was reviewed by the Executive Office of Environmental Affairs (EOEA) and approved in 1978. Since that time, EOEA has approved several modifications to the project.

As currently proposed this project will result in a total build-out of 4,956,900 square feet of new and rehabilitated space. This represents a increase of 363,000 square feet over the total approved by EOEA in the 1978 Certificate.

Phase I of this project will be complete in 1995. It will consist of the develoment of 1,630,100 square feet of office, research, hotel, retail, cultural, recreational and public space, plus a 195 slip marina and 1,845 parking spaces. A 275,000 square foot aquarium facility will be included in this phase.

Phase II, which is scheduled for completion in 2005, will consist of the development of an additional 24,000 square feet of rehabilitated office space, 655,000 square feet of research space, 7,000 square feet of retail space, 178,000 square feet of residential housing space, 134,000 square feet of cultural/ recreational and public space, and 540 parking spaces.

In total this project will consist of the development of 1,344,000 square feet of biomedical research space, a 400 room hotel/conference center, 18,000 square feet of retail space, 308 housing units, 530,000 square feet of cultural/recreational and other public space parking for 2,385 vehicles, and development of water-related and water dependent uses including a 195 slip marina, water shuttle and ferry dockage.

It is estimated that Phase I of the project will increase water flows by 366,600 gallons per day (gpd) and Phase II will increase water flows by 205,800 for a net increase in water flows of 572,400 gpd. Wastewater flows are expected to increase by 333,300 gpd for Phase I and by 186,900 gpd for Phase II, for a net increase in wastewater flows of 520,200 gpd.

The Commission has the following comments concerning the proposed project:

General:

1 1. The proponent will be required to submit to the Commission, a General Service Application and a site plan for each development parcel that involves construction of new service connections to the existing system.

2 2. Connections to the water and sewer systems must be constructed in conformance with the Commission's Sewer Use, Water Distibution System Regulations and Site Plan Requirements.

3 3. The BRA's assessment concludes that overall, the existing water and sewer systems can handle the anticipated increases in flow. However, assessments of the local impacts of the proposed increases on the water and sewer systems within the Navy Yard should be conducted.

4 4. The estimates of residential water and sewer flows in Tables 66 and 68 appear to be low. Please explain the basis of the calculations.

Sewer:

5 1. As mentioned in the DSEIR, the proponent may be required to obtain a NPDES permit from the Environmental Protection Agency for the proposed discharge from the aquarium. A plan

showing the location of the proposed discharge outfall should be provided to the Commission when available.

6 2. Table 67 contains an error in the calculation of residential wastewater generation.

7 3. The proponent should note Article IV of the Commission's Sewer Use Regulations as it pertains to medical research facilities.

8 4. Grease traps will be required in the restaraunts in accordance with the Commission's Sewer Use Regulations. Plans for the grease traps should be submitted to Mr. Eugene Favret, Supervisor for the Grease Trap Program, prior to construction.

Storm Drains:

9 1. Wherever possible, stormwater drainage from the Navy Yard should be directed to the harbor and not to the sewer system which serves the site.

10 2. Oil and sand separators will be required in the garage in accordance with the MWRA's and the Commission's Sewer Use Regulations. Installation of oil and sand separators at outdoor parking lots is also advised. The design and locations of catch basins and oil and sand separators are subject to review and approval by the Commission.

11 3. Discharge of groundwater to storm drains on a permanent basis will not be allowed.

12 4. The developer will be required to obtain an NPDES Stormwater Permit from the EPA for the project, since the total area to be disturbed for the development will exceed five acres.

Water:

13 1. A continuous flow drinking bubbler currently exists in Shipyard Park. The bubbler should be eliminated or else be retrofitted with a shut off-mechanism as soon as possible.

14 2. If potable water will be used for irrigation of landscaped areas, the amount should be quantified. Serious consideration should be given to creating a landscape that requires minimal use of water.

15 3. In addition to the water conservation measures required by the Plumbing Code, the proponent should consider implementing other water saving measures where appropriate.

Thank you for the opportunity to comment on the project.

Yours truly,

John P. Sullivan, Jr., P.E.
Chief Engineer

cc: P. Barrett, BRA
L. Blank, BWSC
S. Coyle, BRA
E. Favret, BWSC
P.J. Foley, BWSC
R. Kobayashi, MWRA
R. Mertens,BRA
S. Shea, BWSC

ak

## LETTER 15 - BOSTON WATER AND SEWER COMMISSION (BWSC)

**Comment #1**

*Topic:* *Submission Requirements*

**Comment:** The proponent will be required to submit to the Commission a General Service Application and a site plan for each development parcel that involves construction of new service connections to the existing system.

**Response:** A General Service Application and a site plan for each development that involves construction of new service connections to the existing BWSC system will be submitted to the Commission by the individual project developer when final design is completed and prior to any construction activity, in accordance with the Commission's requirements.

**Comment #2**

*Topic:* *Conformance with Commission's Requirements*

**Comment:** Connections to the water and sewer systems must be constructed in conformance with the Commission's Sewer Use, Water Distribution System Regulations, and Site Plan Requirements.

**Response:** All connections to the water and sewer systems will be constructed in conformance with the Commission's Sewer Use Regulations, Water Distribution System Regulations, and Site Plan Requirements. Appropriate applications, service connection designs, and site plans will be submitted to the Commission when final design is completed and prior to any construction activity.

**Comment #3**

*Topic:* *System Impacts within Navy Yard*

**Comment:** Assessments of the local impacts of the proposed increases on the water and sewer systems within the Navy Yard should be conducted.

**Response:** In response to the request of the Boston Water and Sewer Commission, HMM Associates, Inc. undertook an evaluation of the impacts from the proposed Charlestown Navy Yard development on both the water and the sewer systems within the Navy Yard. This study, which is included as Appendix D of this FSEIR, concludes that the existing infrastructure is adequate to serve the proposed development and that no significant impacts are anticipated. A summary of the assessment report follows.

Sanitary Sewers

Much of the sanitary sewer system within the Navy Yard has been constructed since 1980 and is adequate to satisfy the existing requirements of the site. Flows are carried on-site primarily by 10-inch, 12-inch, and 15-inch sewers via two routes (Northern Route and Southern Route) which connect to the Charlestown Branch Sewer, which passes through the Navy Yard. Total future wastewater generation is estimated at a maximum of 929,900 gpd, and an instantaneous peak of 1,292 gpm. Phase I and Phase II development, in total, will contribute a maximum increase in wastewater flow of 127 percent above existing conditions. Assessment of the capacities of the sanitary systems within the Navy Yard indicate that the instantaneous peak wastewater generation from the future developments will require 81 percent of the available capacity of the limiting section of the Northern Route and between 28 to 45 percent of the available capacity of the Southern Route.

Water

The Navy Yard is supplied with potable and fire service water by the Boston Water and Sewer Commission's Northern Low Service system via a 24-inch main in Chelsea Street. Connections from the Yard are made by 16-inch mains near the Marine Barracks and at the northeastern end of the Yard near Medford Street. Based on fire hydrant tests and a computerized simulation model of the Yard's distribution system, available flow and pressure within the Yard are found to be extremely good. Simulation of the Yard's water distribution system indicates that the system likewise is adequate to serve the anticipated level of development in the Yard and that there would be sufficient flow with stable pressure of at least 64 psi.

Storm Drainage

Storm drains and sanitary sewers in the Charlestown Navy Yard were separated during redevelopment in the early 1980's. The majority of the storm flows from the Yard are directed to outfalls located at the Little Mystic Channel, while the remainder of the flows discharge into the Boston Inner Harbor. Storm flows after redevelopment are expected to be less than existing flows, due to an increase in the area of permeable ground surface associated with the Yard's End Plan.

**Comment #4**

***Topic:*** *Calculations for Residential Flows*

**Comment:** The estimates of residential water and sewer flows in Tables 66 and 68 appear to be low. Please explain the basis of the calculations.

**Response:** The estimates for residential sewer and water flows for Phase I given in Tables 66 and 68 in the DSEIR represent 152 one-bedroom YMCA residential units and 46 two-bedroom conventional residential units. The wastewater estimate, shown in Table 66, is based on a Title 5 estimate of 110 gallons per day per bedroom times the total of 244 bedrooms, giving the stated 26,800 gpd. Water demand estimates in Table 68 are based on 110% of the sewage generation rate, or 29,500 gpd.

**Comment #5**

***Topic:*** *NPDES Permit*

**Comment:** A plan showing the location of the proposed discharge outfall from the aquarium should be provided to the Commission when available.

**Response:** As requested by the BWSC, a plan showing the location of the proposed discharge outfall from the aquarium will be provided to the Commission when it is available.

**Comment #6**

***Topic:*** *Residential Wastewater Generation*

**Comment:** Table 67 contains an error in the calculation of residential wastewater generation.

**Response:** Table 67 has been revised to indicate the correct residential wastewater generation. A corrected Table 67 is included with the response to Comment #3 of the Massachusetts Water Resources Authority (Letter 14).

**Comment #7**

***Topic:*** *Medical Research Facilities*

**Comment:** The proponent should note Article IV of the Commission's Sewer Use Regulations as it pertains to medical research facilities.

**Response:** Article IV of the Boston Water and Sewer Commission's Sewer Use Regulations governs restrictions and prohibitions of wastes and substances that may be discharged into the Commission's sewers. These regulations include, among others, the prohibition of discharge of any hospital or medical wastes (Section 2(r)) and of any radioactive wastes or isotopes of such half-life or concentrations as may exceed limits established by Federal, State, or MWRA regulations (Section 2(n)). The developers/operators of the proposed medical research facilities within the Navy Yard will be required to conform to these regulations and to obtain applicable discharge permits from the Commission.

**Comment #8**

*Topic:* *Grease Traps*

**Comment:** Grease traps will be required in the restaurants in accordance with the Commission's Sewer Use Regulations.

**Response:** Grease traps will be installed in the restaurants in accordance with the Massachusetts State Plumbing Code and the BWSC's Sewer Use Regulations.

**Comment #9**

*Topic:* *Stormwater Drainage*

**Comment:** Wherever possible, stormwater drainage from the Navy Yard should be directed to the harbor and not to the sewer system which serves the site.

**Response:** It is the intent of the BRA that all stormwater drainage from the Navy Yard will be directed to the harbor and not to the sewer system which serves the site. Prior to discharge into the harbor, site drainage flows will pass through oil and sand separators designed in conformance with the requirements of the Commission and the MWRA. The BRA is committed to a maintenance program that will include regular clean-out of catch basin sumps and oil and sand separators to ensure the cleanest possible discharge into the harbor.

**Comment #10**

*Topic:* *Oil and Sand Separators*

**Comment:** The design and locations of catch basins and oil and sand separators are subject to review and approval by the Commission.

**Response:** All catch basins and oil and sand separators will be designed, located, and built in accordance with the criteria and requirements of the BWSC and the MWRA. Appropriate plans will be submitted to the Commission for review and approval prior to any construction activity.

**Comment #11**

*Topic:* *Groundwater Discharge*

**Comment:** Discharge of groundwater to storm drains on a permanent basis will not be allowed.

**Response:** The BRA is cognizant of the fact that the Commission will not allow groundwater to be discharged to storm drains on a permanent basis. No such permanent discharge is proposed.

**Comment #12**

***Topic:*** *NPDES Permit*

**Comment:** The developer will be required to obtain a NPDES Stormwater Permit from the EPA for the project, since the total area to be disturbed for the development will exceed five acres.

**Response:** A NPDES Stormwater Permit will be obtained, if required from the EPA, for any new or increased stormwater discharges from the Navy Yard, in accordance with EPA requirements.

**Comment #13**

***Topic:*** *Shipyard Park Drinking Bubbler*

**Comment:** A continuous flow drinking bubbler currently exists in Shipyard Park. The bubbler should be eliminated or else be retrofitted with a shut-off mechanism as soon as possible.

**Response:** The bubbler was originally designed to flow continuously, as it does presently, and is very popular with park users, particularly children.

The bubbler is turned on only during the summer months and turned off (via a remote valve) during the rest of the year.

**Comment #14**

***Topic:*** *Landscaping Irrigation*

**Comment:** If potable water will be used for irrigation of landscaped areas, the amount should be quantified. Serious consideration should be given to creating a landscape that requires minimal use of water.

**Response:** The amount of water required for the irrigation of landscaped areas within the Navy Yard (as anywhere) is highly dependent on the type of vegetation planted. Therefore, it is not feasible to make an accurate quantification of the irrigation water requirements. However, in considering its landscaping requirements, the BRA has endeavored to avoid plantings that require excessive amounts of water. The BRA intends to continue this policy with regard to future landscaping within the Navy Yard and will give serious consideration to creating a landscape appropriate to the region's climatic conditions that requires minimal use of water.

In addition, the use of mulch as a ground cover will reduce water evaporation from the soil as well as the number of weeds that would otherwise compete with plants for available soil moisture. Also, the use of a drip (or trickle) irrigation system can save 30% to 70% of the water used by overhead sprinkler systems (MWRA, "Landscaping, Garden & Flower Care").

**Comment #15**

***Topic:*** *Water Conservation*

**Comment:** In addition to the water conservation measures required by the Plumbing Code, the proponent should consider implementing other water saving measures where appropriate.

**Response:** The BRA recognizes the desirability and benefits of implementing water saving measures beyond the requirements of the Plumbing Code, where appropriate. It is noted that the MWRA has found that the most substantial means for water conservation is through the use of water-saving sinks and faucets and low-flow water closets and showers. These conservation measures will save an estimated 20-25% of the water demands from the use of conventional fixtures and hardware. Additional conservation measures, such as the use of spring-loaded or time valve fixtures, will be considered for the various future developments in the Navy Yard.

In addition, the BRA will require proponents of the individual project developments to investigate the implementation of other water conservation measures, beyond the Plumbing Code requirements, as part of the Authority's project review requirements.

LETTER 16

Charlestown

Neighborhood Council
26 Mt. Vernon Street
Charlestown, MA 02129

July 15, 1991

Mrs. Susan Tierney, Secretary
Executive Office of Environmental Affairs
100 Cambridge Street
Boston, MA 02202

RE: EIR FILE #2383

Dear Secretary Tierney:

We the undersigned members of the Charlestown Neighborhood Council are pleased to write to you today to wholeheartedly endorse the Boston Redevelopment Authority's Draft Supplemental Environmental Impact Report (DSEIR) for the Charlestown Navy Yard.

The Charlestown Neighborhood Council serves as an advisory board to the City of Boston and the Boston Redevelopment Authority on all issues relating to development projects within our community. The Council consists of a 21 member board with 14 members popularly elected by the neighborhood residents and the remaining 7 appointed from Charlestown based non-profit organizations by the vote of the 14 elected members.

Since 1987, the Charlestown Neighborhood Council has worked tirelessly on the proposed redevelopment of the Charlestown Navy Yard. The Charlestown Neighborhood Council is proud of the intense public process that has been sponsored and to date, we have held over 150 public meetings with Charlestown residents, local merchants, harbor advocacy groups, historic preservation officials, organized labor and other interested organizations to create a plan that fulfills the goals that have been espoused through this extensive four year process.

What is most remarkable about this effort is the spirit of cooperation between the Charlestown community, the Charlestown Neighborhood Council and the Boston Redevelopment Authority. With the advent of the BRA's Charlestown Urban Renewal Plan of 1955, there existed decades of mistrust with regard to any BRA planning implementation within our community. Since the creation of the Charlestown Neighborhood Council, and the public forums which have since been held, this sense of mistrust has been bridged into a spirit of cooperation, a sense of pride in our community, and the realization that the Navy Yard will once again be a viable place to live, work and play for future generations of Charlestown residents. This sense of trust was exemplified by a vote of the Charlestown Neighborhood Council of 20 to 1 in favor of both the Charlestown Navy Yard Masterplan and re-zoning which at that time included higher building heights at Yard's End than is currently being considered in the DSEIR. 1

In 1974, the Charlestown community was devastated when the United States Naval Department announced that the Yard would be closing. Since that time the Charlestown community has seen tremendous positive changes; today with a private investment of over Five Hundred Million Dollars, the Navy Yard has been transformed into a vibrant mixed use development that respects the architectural context of the Yard while providing jobs and economic opportunities, affordable housing opportunities, open space and much needed public access to the waterfront.

In terms of economic opportunities, the Yard had historically served as Charlestown's economic base employing up to 50,000 people during it's peak years. In 1983, a total of 16 people were employed in the Yard, by 1991, that figure has reached more than 3,000, and it is expected that this figure will reach upwards of 7,000 upon completion and buildout of the Yards end. Today, Charlestown residents are employed by the Massachusetts General Hospital, Massachusetts Water Resources Authority and Fulton Properties to name a few. With completion of the Yard, the Charlestown community can look forward to new employment opportunities in the biomedical/research field, and hotel industry, as well as primary and secondary jobs related to the relocation of the New England Aquarium, and the related retail and business establishments which will be created as a direct result of these developments.

In 1983, housing opportunities in the Yard were limited to the very few who could afford the market rate units. In 1991, the Yard is home to 50 families living within the nationally recognized Bricklayers and Laborers Non Profit Corporation's housing development on First Avenue. Presently, the Bricklayers and Laborers Non Profit are planning an additional elderly housing development of 46 elderly residential units within the historic rehabilitation of Building 104. Upon completion, the Navy Yard will have realized a total of 288 elderly housing units. This figure will have surpassed Mayor Flynn's 1984 goal of 25% affordable housing within the Navy Yard.

As an operating Naval Yard for 174 years, public access was prohibited, except for the occasional "Open House Day". Today, at 16 acre Shipyard Park our residents enjoy the wonderful vistas of the Boston skyline and waterfront, and our children enjoy it's wading pool and fishing piers. The Courageous Sailing Center located adjacent to Shipyard Park at Pier 4 was one of the first inner-City sailing programs, and it provides terrific sailing opportunities for both neighborhood children (free) and adults alike.

While it is true that the City of Boston and the Charlestown community have made substantial gains in the redevelopment of the Navy Yard, there were still issues with regard to development at Yard's end which needed to be addressed, such as: traffic, parking and transportation management, building heights, public access, open space and linkage programs. We believe that these issues have been put to rest and in fact believe that this DSEIR is the culmination of one of the City's most comprehensive planning tasks.

We are pleased with the following goals and objectives that have been established through this intensive planning process:

- Realization of a maximum amount of public benefits, including both construction and permanent jobs, new taxes and various linkage programs.
- Develop additional market-rate and affordable housing opportunities.
- Produce attractive commercial and retail space to accommodate the expanding Boston economy, and to create a wide range of employment and business opportunities for Charlestown residents.
- Achieve a balance between residential, open space, commercial/retail, cultural, hotel and waterfront uses.
- Manage transportation issues to prevent congestion in the Navy Yard and the Charlestown Neighborhood.
- Create a substantial and attractive system of public open spaces, waterfront access, recreational opportunities, and exciting public attractions, for people of all ages to enjoy.
- Rehabilitate and adaptively re-use the Navy Yard's many historically significant structures.
- Minimize and mitigate potential impacts of new development on historic resources and enhance people's appreciation of the Navy Yard as a National Historic Landmark.

We the elected members of the Charlestown Neighborhood Council realize that approval of the Draft Supplemental Environmental Impact Report is but another step in an elaborate planning process. Our job will carry on, there will continue to be a public process around each individual development in the Navy Yard. The future of the Navy Yard will be one that through thoughtful planning and implementation will once again realize the Navy Yard as an economic mainstay in Charlestown, the City of Boston, the Commonwealth of Massachusetts, and the New England Region.

We are also confident that the planning process that has evolved will become a model for other communities across the state, and the nation that face the daunting task of trying to reuse closed military bases as the Charlestown community and the City of Boston experienced in the early 1970's.

We urge your utmost consideration, support and approval of the DSEIR. Thank you.

Respectfully yours,

## LETTER 16 - CHARLESTOWN NEIGHBORHOOD COUNCIL

**Comment #1**

*Topic:* *Building Heights*

**Comment:** The Charlestown Neighborhood Council voted 20 to 1 in favor of both the Charlestown Navy Yard Master Plan and re-zoning which at that time included higher building heights at Yard's End than is currently being considered in the DSEIR.

**Response:** The building heights have in fact been lowered since the Charlestown Neighborhood Council approval of the Navy Yard Master Plan and re-zoning. Approved heights for Buildings A, B, and C of the Biomedical Research Center were 155 feet, 155 feet, and 125 feet, respectively. As now proposed, these buildings have heights of 140 feet, 155 feet, and 110 feet, respectively. The BRA appreciates the Charlestown Neighborhood Council's continuing involvement in and support of the Navy Yard redevelopment process.

LETTER 17
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RECEIVED
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MEPA

The ad hoc Coalition
July 25, 1991

Secretary Susan F. Tierney
Executive Office of Environmental Affairs
100 Cambridge Street
Boston, MA 02202

Attention: William Gage
MEPA Unit

RE: EOEA 02382--Charlestown Naval Shipyard

Dear Secretary Tierney:

The ad hoc Coalition continues to have serious concerns regarding the proposed Charlestown Naval Shipyard development. The bottom line is there is no way the Naval Shipyard development can proceed as proposed without damage to many in the future. The only true solution is to reduce the buildout, specifically by reducing the bulk of the buildings on Parcels 6 and 7 and Pier 5. In the attachments to this letter, we have offered significant data and analysis concerning traffic, historic resources, open space and waterfront access -- all of which explain and support this recommendation.

In addition, we ask that you ensure the following:

*That this submission for environmental review be considered for what it is -- a significant change from the last full review, not a "minor change" in plans as the BRA insists on calling it. The "as amended" clause is critical and deceptive. These amendments were made piecemeal and there have been significant use, scale and other changes over time. Earlier full approvals were based on much smaller development(see our letter to Secretary DeVillars of December 24, 1990 attached).

1 *The open space assumptions in this plan should be explained and tallied before any approval is made. As discussed in more detail in our appendices, the assumptions are unclear, making it impossible to understand how the 50% of total development as open space is derived. Furthermore, we continue to object strongly to the huge concessions made to the intent of Chapter 91 regulations which were established to make the waterfront a public, open, accessible space. Allowing exceptions to the Chapter 91 50% rules, which in effect move the open space away from the water, is particularly distressing.

*The traffic and parking issues remain serious. This is discusssed thoroughly in our appendices. The two most glaring issues center around traffic assumptions and mass transit planning. The traffic impacts of
2 this development will have the greatest impact on the community. There are many extremely optimistic assumptions throughout. We ask that a thorough review and assessment of the analysis by a disinterested traffic
3 engineering professional take place before this plan is approved. In addition, we strongly disagree with the mitigation proposal of expanding
4 Chelsea Street and urge that this be rejected. We ask that all mitigation measures be made contractual requirements before any work goes ahead. We
5 request that specific, detailed and complete transit plans be required before final approval, including clear assignment of responsibilities for ensuring the implementation of such plans. Finally, we request that a sytem be established for regular monitoring of traffic to be reported to
6 the community. And, if traffic exceeds projections, the community have recourse to reopen the plans.

*In Secretary DeVillars' January 2, 1991 letter, he stated specific EIR's
7 be required for the New England Aquarium and Biotech buildings 2 and 3. We trust it is clear to the BRA and others that the current SEIR does not fulfill this requirement and such reviews will take place. Similarly, we
8 trust that all requirements for Pier 5 environmental reviews noted in the same DeVillars' decision remain fully in effect.

GOALS AND ACTIVITIES/THE AD HOC COALITION

The ad hoc Coalition was formed by a group of Charlestown citizens several years ago in response to concerns about the impending development of the Charlestown Navy Yard, in general, and the New England Aquarium move to the Yard, specifically. The Coalition has had a broad range of participation from the community, newcomers and "townies," blue collar and professional. Included in the group have been architects, planners, engineers, lawyers, housing experts, as well as representatives from preservation organizations, the Bunker Hill Tenants Task Force and various Navy Yard resident associations.

The Coalition has served to analyze, research, raise questions and propose alternatives regarding the Navy Yard proposals with the BRA, various developers, the Charlestown Neighborhood Council, and the many agencies involved in the Navy Yard planning.

For example, based on assessments of the proposals and the community's feelings, the Coalition was the principal player in opposing the move of the New England Aquarium to Dry Dock 2 and supporting the revised proposal for the Dry Dock 5 location. This was a long and difficult "battle," but one which benefited the community.

Subsequently, the Coalition has continued to follow closely, assess and comment on the Master Plan, zoning, 106 historical review and environmental reviews surrounding the remainder of the Yard's Development. Members of the Coalition have been involved in Navy Yard development plans for many years and understand the issues well.

The objective throughout this process has been to help develop a plan which "works" for the community, one in which:

*development proceeds at a timely and economically viable pace;

*traffic and parking impacts on the community are minimized to keep the rest of Charlestown a livable place;

*the very important historical nature of the Yard is preserved for posterity; and

*the access and views to the water are preserved for everyone, along with adequate green space for waterfront enjoyment.

It has been very clear that the Coalition members share a long-term perspective. We very much want to see the Navy Yard development completed, but we also believe strongly that this is for the long haul. The project is huge, and what is decided here will impact Charlestown and Boston permanently. The short-term economic benefits of the development are relatively limited -- especially in today's economic climate -- and should not be allowed to hold the much more important long-term outcome hostage.

Many of us lived through the debacle of Flagship Wharf and see it as a sad example of what narrow, short-term thinking can do. We fought its enlarged, out-of-scale, out-of-character redevelopment, only to see it empty and blocking water views from the land and land views from the water. It is of little help now to hear so many people say it was a mistake.

DISSATISFACTION WITH THE REVIEW PROCESSES

However, we also recognize the inevitable conflict between short and long-term benefits along with the natural desire for developers to want more rather than less built. So we looked to the various local, state and federal oversight agencies to balance this. Here we found the greatest disappointments.

*We have seen Chapter 91 coastal regulations overridden and been told by the Massachusetts Environmental Secretary that we who should come up with an alternative rather than receiving an explanation as to why these rules -- set out to protect us -- should so easily be disregarded.

*We have seen the Navy Yard buildout increased dramatically from earlier plans, while being told by our city's planning agency that this is not true because the earlier plans were "amended."

*We recall a 1977 quote from Secretary Murphy, "full project implementation must be accompanied by an enlightened mass transit program which can be pushed by the BRA," and 14 years later see a plan which is 60 percent greater with no mass transit plan at all, but a major artery on Chelsea Street and likely turmoil in City Square.

*We have seen zoning approved without a plan and then that zoning used as a basis for approving the plan.

*We have seen "Haul Roads" promised and dropped; no mention of any commitment to this has been made in the SEIR.

*We have seen historical comment which warns that the "cumulative effect of all the new construction has a substantial negative impact on the National Historic Landmark" and yet apparently approves the plan.

*We have heard the BRA tell us with pride that the heights on Pier 5 have been "reduced" to 55 feet, when older plans called for no more than 35 feet; moveover, this Pier is inappropriate for housing anyway.

All of this and more is extremely discouraging. It seems to us that the laws and regulations set up to protect us are being overridden as short-term economic concerns and politics rule the day. We see little likelihood that this pattern is going to change without expensive legal proceedings.

What we ask of the current environmental review is a change from this discouraging pattern and a real hard look at the Navy Yard plans occur before it is too late. It deserves very serious consideration, not in terms of possible short-term economic benefits which are less and less likely given th current environment, anyway, but in terms of how this plan will make Charlestown and Boston a great attraction for both residents and tourists in the future, one that will enhance and preserve its heritage of water and shipbuilding and people.

APPENDICES

Attached are a number of documents prepard by our group, discussing points raised in this letter in greater detail. A brief description of each is als attached.

Thank you very much for your attention.

Sincerely,

Jane T. Philippi

Jane T. Philippi
32 Monument Avenue
Charlestown, MA 02129

For the ad hoc Coalition

cc. Senator Kennedy
Senator Kerry
Congressman Kennedy
James W. Coleman, Jr., DOI
John Burchill, NPS
Alisa McCann, NPS
David Doheny, NTHP
Governor Weld
Secretary Taylor
Secretary of State Connolly
Janet McCabe, MEPA
Wm. Gage, MEPA
Jeffrey Benoit, CZM
Dennis Ducsik, CZM
Laurel Rafferty, CZM
Daniel Greenbaum, DEP
Judith McDonough, MHC
Senator Birmingham
Representative Voke
Representative DiMasi
Mayor Flynn
Stephen Coyle, BRA
Richard Dimino
Councillor Travaglini
Harborpark Advisory Committee
Richard Fowler, BZC
Alan Schwartz, BLC
Susan Park, BPA
D. McLoughlin, CNC
A. Hamilton, CLF
S. Lynch, SHSB
J. Ackerman, GLOBE
P. Howe, GLOBE
S. Marantz, GLOBE
M. Gendron, HERALD
J. Myers, HERALD
Marjorie M. Arons-Barron, WCVB TV
Charlestown Neighborhood Council (J. Evers)
Dan Gregory, Secretary Ec. Affairs
Jim Gomes, EOEA
Boston Landmarks Commission
Boston Preservation Alliance
Mid-Atlantic NPS
John de Monchaux, BCDC
National Trust for Historic Preservation

## APPENDICES

A. Historical Resources - Expresses dissatisfaction with heights and density of the proposed plans, along with other specific site comments in the context of protecting this very important National Historic Landmark.

B. Transportation Summary and Detail -- Outlines many detailed concerns and questions concerning assumptions used in developing the transportation assessment for the yard. Includes discussion of:

-analysis of assumptions,
-lack of transit plan,
-why the current plan is a significant change from past plan reviewed by Environmental office and not a minor change,
-impact on local streets, and
-turning Chelsea Street into an artery.

C. Open Space -- Discussion of lack of adequate open space and visual and pedestrian access to the water, with particular discussion of disregard to intent of Chapter 91 standards.

D. Chapter 91 -- Similarly highlights large conflicts with Chapter 91 regulations in proposed plans. Of particular concern is that, so far, the response from the Environmental Office has been to justify the deviations rather than any attempt to force the plan to conform with standards.

E. History -- of the planning process and the ad hoc Coalition's involvement in it.

F. December 24, 1990 letter from the ad hoc Coalition to Secretary DeVillars on the Environmental Review--contains discussion of increased buildout being proposed.

A

Ad hoc Coalition

COMMENTS ON THE IMPACT ON HISTORIC RESOURCES OF THE REVISED MASTER PLAN FOR THE CHARLESTOWN NAVY YARD

The Charlestown Navy Yard is a National Historic Landmark, the highest recognition afforded historic properties by the government of the United States of America. According to the Boston Redevelopment Authority, development of the navy yard constitutes the "largest preservation and reuse effort in the country." In 1977, when the original master plan for reuse of the shipyard was devised, it was also one of the first attempts to address the complex task of adapting a vast industrial area to totally different uses, while respecting the historic character and significance of the site. The strategy which was adopted was to identify several different zones within the yard - areas which differed in architectural character and historic significance - and to apply guidelines to these zones which respected those differences. The goal was to achieve a mixed use development which allowed for change, but was in harmony with the scale, character, and particular idiosyncrasies of an historic shipyard which had evolved over a period of 175 years.

1 The committee is familiar with both the original plan and the current proposed modifications to it. In general, the committee is satisfied that the guidelines and proposed treatment of the buildings and groundplane in the Historic Monument Area were, and are as currently proposed, appropriate to the historic significance of the individual resources and the shipyard as a whole. We have some concern that proposed new courtyards and plazas could introduce elements foreign in design and character to the shipyard, and that street furniture which is appropriate to some parts of the yard might be repeated slavishly in areas where they would never have existed. The committee will be interested to follow the design process as it applies to these elements as well as to rehabilitation

2 and new construction in the Historic Monument Area. It is also concerned that efforts to stabilize and use especially significant resources, most notably the Ropewalk and the Forge and Chain Shop, proceed in a timely manner.

3 The committee, on the other hand, is extremely concerned about the potential effect of proposed new construction in the zone which was identified as the New Development Area in the original plan. We believe that the 1978 guidelines were never sufficiently respectful of the form and character of the shipyard, and we find that the proposed changes not only maintain certain errors in approach but add new elements which will be detrimental to the historic significance of the shipyard.

4 Among the mistakes which will be perpetuated in the revised plan is the concept of building housing on pier 5. The piers which exist at the navy yard never had "mid nineteenth century warehouse wharf structures" on them. They were outfitted with small structures such as have been reused for marina related functions. To

build major structures on the piers, whether fifty-five feet or seventy-five feet high, is to change the essential character of the piers, and the primary views of the shipyard from the harbor.

5 The guidelines for parcel 4, the hotel site, may have improved from the 1978 guidelines, but the building which is allowed under the new guidelines is still inappropriate in form to the navy yard. The envelope of the proposed hotel relates neither to the massive wharehouses and shop buildings such as building 42, 149 and 199 nor the long, low, gable roofed, clerestoried structures known as Buildings 103, 104, 105 and 106. It is too elegant and residential in character for its site.

6 On the other hand, parcels 6 and 7 contemplate buildings which go too far in the other direction: they are excessively massive. The immensity of these new buildings will dwarf the historic structures, reducing their meaning and significance. Buildings such as # 42, 105, 149 and 199, which once appeared to be massive industrial giants, representing the power and technology of America's Navy, will be overwhelmed by the sheer bulk of the new structures.

In the years since the original master plan was adopted for the Charlestown Navy Yard, the committee has seen the effects of the plan and the administration of the design guidelines for the several zones of the shipyard. We have seen the effects of over-large development, in the form of Flagship wharf, which dwarfs adjacent buildings. We have seen the results of building housing where it never existed - on piers - and in forms which do not reflect the architectural traditions of the shipyard. We have also seen some exemplary rehabilitation and new construction which blends well with the site.

We recognize that plans need to be adapted to changing circumstances, and we see some exciting opportunities for the shipyard: the presence of the New England Aquarium, now in an appropriate setting, and the proposed increased interpretation of the historic shipyard. But we are concerned, as was the National Park Service, in its March letter to the Boston Redevelopment Authority, about the cumulative effect of the changes: not only the massive new construction proposed for parcels six and seven, but of the intrusion of other, lesser buildings and modifications which do not grow out of an understanding of the essential character of this extraordinary place.

The committee is disappointed that the master planning process, and the review process carried out under the provisions of Section 106 of the National Historic Preservation have fallen short of their stated goals of protecting this National Historic Landmark.

B TRANSPORTATION APPENDIX

July 23, 1991
ad hoc Coalition

TRANSPORTATION

In 1977, when Secretary Murphy reviewed the BRA's Master Plan for the Navy Yard, she expressed concern that the density of project being proposed was excessive, viewed from the perspective of traffic generated vs. capacity of the local roadway system. She noted several discrepancies between underlying assumptions of the Navy Yard traffic analysis and those of the concurrent State analyses for the Chelsea/Water Street and CANA projects. She suggested at that time that actual future traffic might double the BRA's Navy Yard estimates and cited vagueness on BRA's part as to the actual criteria that were used to arrive at the predicted traffic volumes. Finally, she stated that "full project implementation must be accompanied by an enlightened mass transit program which can be pushed by the BRA".

Today, many of us in the Charlestown community have concerns similar to those expressed by your predecessor 14 years ago. Unfortunately, our concerns must be exacerbated because the level of development proposed today is nearly 60 per cent greater that what was intended in 1977. Today we are confronted by the absurd assertion by BRA, proponent of the latest Yard Master Plan, that a buildout of nearly 5 million square feet will produce only slightly more average daily vehicle trips than the original plan of about 3 million square feet was predicted to produce in 1977. We take note that while the smaller 1977 plan predicted 2350 vehicles in the PM peak hour, the current plan for the year 2005, with a buildout about 60% GREATER will generate only 1892 vehicles (about 20% FEWER) during the same peak period during the summer tourist season. We have followed the BRA's logic carefully and find that this optimistic prediction can be arrived at only through the piling up of an array of self-serving assumptions that feed on themselves to create a distortion of great proportions. While some 15,000 daily Navy Yard transit trips are predicted for the year 2005, only platitudes are offered on the mechanics of accomplishing this, as they were in 1977, and no concrete actions have yet been taken in this regard by BRA.

We are only too well aware that access to the Navy Yard is highly restricted, there currently being only two gates available, both leading to the same street. Mass transit service to the Yard is minimal, including the water shuttle and a few employer-run shuttle buses. The CANA project, making the most of geography, will, even when tied into proposed Central Artery improvements, produce a City Square intersection that will operate at a less than satisfactory level during peak hours. The great majority of Navy Yard vehicular traffic will pass through either City Square or Charlestown residential streets even after the Central Artery is completed, at least until the haul road that the community has proposed is built along the

north edge of Charlestown. We were disappointed to see no commitment to construct the haul road in the SEIR. Because of these unique circumstances, there is little margin for errors in predicting future traffic or in providing infrastructure to support it. We believe that the presented traffic analysis has greatly underestimated the traffic that this project will generate in order to enhance the chances of project approval.

General Reaction to Traffic Analysis

After years of following this project as a citizens group, we realize that BRA is determined to create a 5 million square foot development in the Navy Yard regardless of the consequences. It is also committed to developing no more than 4495 parking spaces within the Yard, regardless of the parking demand created by the intended development. Given these two essentially incompatible objectives, a plausible traffic scenario had to be developed linking an acceptable number of vehicle trips to the proposed development, and the intended parking limit to the specified number of vehicles. Out of sheer necessity, such a scenario has in fact been created by BRA. A very thick volume teeming with assumptions, tables and charts has been constructed which appears to legitimize the intended buildout, and we would have to agree that a logical progression of analytical steps has been taken in the traffic study. We take strong exception, however, to the assumptions which underlie this traffic analysis and hence we dispute the conclusions arrived at. We believe that if full buildout is permitted to occur, an intolerable level of traffic will be introduced into our community.

Over the history of this project, we have seen a variety of development approaches put on the table and removed. At different times the plans have stressed office space or housing. Retail and hotel uses have at times been significant in the plan, and at other times insignificant or removed from the plan completely. One things most of these plans had in common is that traffic analysis of the various land uses could not justify the desired mix of development and parking, no matter how much tinkering was done with such factors as modal split, average vehicle occupancy, peak hour percentages, and shared parking. In 1988, however, a breakthrough was made by BRA with the invention of a new land use, entitled."Medical Research". As a new invention, minimal published data was available to contradict the assignment of an incredibly low number of daily vehicle trips to this use. Furthermore, the field was clear to do the tinkering noted above to a far higher degree. For example, a far lower percentage of non-walking work trips could now be attributed to auto trips for the research use (48%) than to similar trips for the office use (70%), based on some unverified theory that research workers could be more easily coerced into abandoning their cars than office workers. With this license to manufacture traffic results at hand, it is no suprise that in the current plan the research use predominates (2,045,000 SF or 41% of all developed space).

Without the artificial development of the research land use, the current plan would display dramatically higher daily trips and there would be a demand for far more parking spaces. Neither of these situations could be accommodated by existing land and infrastructure. Zoning passed last year by BRA permits a conditional substitution of office use for research so, while the plan is predicated on the low research traffic numbers, conventional office space could wind up being built instead, without provision being made for its higher traffic generation. The question must be asked: Is it prudent public policy to base a development on the BEST possible prediction of future traffic? Logic would call for planning based on a WORST case scenario, or for at least to have some margin for error built in. The Charlestown community will be the loser if the plan's traffic impacts are badly underestimated. We believe that it is the duty of the public agencies associated with this project and its approvals to protect the interests of our community.

We find it highly disturbing that BRA, after devoting a great amount of effort to developing an explanation of how observed baseline (1989) traffic was generated, threw away this explanation when it came to predicting future traffic. The result is that projected traffic in 2005 is about a third less than it would have been if the original assumptions for the 1989 traffic had been used. This is but one of many instances of artificially depressing future projections in order to fit the intended result.

In the following paragraphs, exception is taken in detail to many of the techniques and assumptions employed in the SEIR traffic analysis. In brief we feel that the plan utilizes every conceivable device to downplay the traffic impacts of this project. In the process it creates a mass transit scenario of monumental proportions (15,000 transit trips a day in 2005) without putting in place specifics as to how such transit will be provided. Our quarrel with the traffic report relates to the following issues:

1. The baseline model (1989) is based on too little data.
2. Trip rates for the research use are greatly distorted.
3. The 1989 baseline model is substantially departed from in predicting future traffic.
4. Peak hour trips are underestimated.
5. The assumptions for vehicle occupancy have been raised.
6. The mass transit component of the plan is unrealistic.
7. Future cultural / recreational trips are underestimated.

8. The APPROVED PLAN is fictional and outrageous.

9. The plan downplays traffic impacts on local streets.

10. The plan makes Chelsea St. an arterial highway.

11. Parking is inflexible.

Specific Traffic Analysis Deficiencies

1 1. Baseline model based on too little data. Early in the traffic analysis work, BRA developed a theoretical scenario of how Navy Yard traffic would be split up according to the various land uses proposed to be developed (Office, Housing, Residential, etc). It then decided to check the accuracy of its scenario by measuring current yard traffic and seeing how the actual number of trips counted compared with those predicted by the scenario. According to the SEIR, traffic at the two Yard gates was tabulated by automatic counters for TWO DAYS. An average of 10,122 daily trips was counted, but the initial scenario had predicted only 5302. It was thus necessary to do a "calibration" to make the sets of numbers match.

Now, 5302 predicted trips seems a lot fewer than 10,122 measured ones, In reconciling the differences, one would think that the "calibration" would raise the predicted trip rates for the land uses across the board. Instead, the housing rate was raised by 120 percent, office and retail by about 15%, but research was lowered by 8 percent. Finally, some 630 construction workers materialized to absorb 12% of all the trips, and NPS visitors were introduced to the picture with some 800 trips. Interestingly, in BRA's February 1990 Transportation Impact Analysis, only 489 NPS trips were reported in an earlier version of the same "calibration".

The construction of the Calibration raises several points:

a. Why should such an important development of trip rates be based on only TWO DAY's traffic counts? The Navy Yard traffic analysis has been ongoing for several years. Were no other counts ever taken, or could it be that no other numbers produced acceptable results? If comparable counts were made at other times over the years, it is requested that this information be provided. If not, we would like an explanation of how an entire traffic projection can validly rest on such skimpy data.

b. The effect of the various calibration adjustments is to downplay the impact of the research use, a great deal of which is proposed, while dramatically accentuating the impact of residential uses, of which little more is to be built.

c. The role of the construction worker and NPS trips is disproportionately large and hence suspect, particularly as the BRA is the source of the first and the second has changed from prior studies. These uses appear to be absorbing trips that should be assigned to the research use.

2

2. Trip rates for research use greatly distorted. We have many areas of dispute with the BRA traffic analysis, but the most glaring is in the traffic generation rates of the research land use. The 1977 EIR predicted 1060 trips a day for the retail/office use. That plan called for 80,000SF of retail/commercial and 60,000SF of office/loft space. This would indicate about 7.5 trips a day per 1000 SF for office/retail uses. In the 1978 Addendum, an office trip rate of 6 per 1000 SF was offered by BRA. By contrast, BRA now proposes 1.86 trips per 1000 SF per day for its research use.

Is research use so unlike office use, that we can have confidence in a trip generation rate of ONE THIRD the office rate? If so, such a rate must be well documented. What is the basis for the rate in question? Table 12 of the SEIR indicated that a study CONDUCTED BY THE BRA, the project proponent, is the source of information on research trips. What makes research such a low user of people and high user of space? It is understood that such space contains laboratories and workshops, but it also contains substantial numbers of technicians, administrators, secretaries, clerks, and janitors, as indicated in SEIR Table 9. Interestingly, in its 2/23/87 letter to Secretary Hoyte, (SEIR Appendix 2) the firm of McCormack & Putziger requested that the use of Building 149 be changed from Office and Retail to OFFICE AND MEDICAL LABORATORY use. At that time, the proponent alleged only that "the change in use should not result in an increase in traffic or increased demand for parking in the Navy Yard". The letter further noted that office and medical was "functionally equivalent" to office and retail use. If research is so dramatically low in traffic generation, why would that fact not be cited by a proponent petitioning for a variance? Given the level of Yard development to date, it is difficult to justify the BRA claim (SEIR p52) that nearly 3,000 persons are currently employed in the Yard without a higher density of research employees than is currently admitted to.

2

3. Calibrated Model Departed From - While we have disputed how the 1989 trip numbers described in Issue 1. above are derived, at least they correspond in the aggregate to an observed number of trips. The 1998 and 2005 forecasts seem to have no need for such correlations. For these future years, the

percentage of all trips made by walking suddenly increases by up to 20 %, the percent of vehicular trips taken by auto is inexplicably reduced by up to 20% and increases are made in average vehicle occupancy. The net effect of this arbitrary action is startling; Office trips per KSF go from 6.6 to 4.9. Research trips go from 2.9 to 1.9. Retail trips go from 19.5 to 11.2 and residential trips drop from 6.2 to 3.5. This amounts to a difference of 5900 daily vehicle trips in 1998 and 7150 daily vehicle trips in 2005! In other words, if these adjustments were not made, 1998 daily trips would be 32 per cent greater and 2005 trips would be 34 per cent greater than what the study predicts! What kind of traffic study inserts a fudge factor of more than 30% midway through the analysis? If we tried to reconcile these reduced trip rates with the 1989 Calibrated model so proudly detailed in Table 14, and, which we have already observed, has its own problems, only 5810 trips of the 10,122 observed would have been accounted for. Perhaps we we could account for this discrepancy by assuming that there were 2642 construction workers on site on those 1989 days instead of the already amazing 630 we have seen.!!

We believe that this major shift in assumptions undermines the credibility of the traffic analysis. Had the original trip rates been used to predict traffic in the year 2005, the forecast of 20,835 trips would instead be 27,985. Doesn't this seem a better number to relate to 4.95 million SF given that it was predicted in 1977 that 3.0 million SF would generate 18,000 trips?

Let's take the situation a step further, staying with the 1989 numbers. Let's say that market forces or a change in the nature of the research use should cause the density of employees to go up. Let's say that research space (2.93 trips/1000SF) were to suddenly generate as many daily trips as the rehab office use (6.6 trips/KSF). Then the ultimate research buildout of 2,045,000 SF wold produce an additional 7,566 daily trips!! Now we have a total of 35,551 daily trips! This is 70 percent more than predicted by BRA. If the level of traffic admitted to already heavily impacts places like City Square, what would 70% more traffic do? Where's the worst case scenario?

2 4. Peak hour demand has been reduced. In a report entitled "Transportation Impacts of Alternative Development Scenarios for Charlestown" of May, 1989, a BRA consultant examined various buildout options for the Yard and generated estimates of both average daily and AM/PM peak hour vehicle trips. Comparing the peak hour-daily trip ratios for various uses indicated in that 1989 report with those of the SEIR, one finds that the peak hour values are significantly reduced in the current report. Considering the uses common to both reports, (office/research, retail, residential, and hotel) it is noted that when the 1989 peak hour rates are applied to the current

number of trips, the number of AM peak trips would be 54% greater than currently projected, and the PM peak trips would be 56% higher. While which set of peak rates is the correct one could be debated, we see that once again here is a case where changes have been made in the direction of minimizing future traffic estimates.

3 5. The Average Vehicle Occupancies (AVO's) are raised.- If one were to compare the so-called person trip end rates for the various land uses described in this report with the trip tables included in "Trip Generation 5th Edition, Institute of Traffic Engineers, January, 1991", at first glance once might assume that the BRA's office rate is slightly low, the research rate is extremely low, and the hotel and residential uses are slightly high. What is not as evident is that virtually all of the ITE trip rates have a built in rate of average vehicle occupancy, usually in the 1.1 to 1.2 range, whereas the BRA's trips assume 1.0 in all cases. Thus when adjustments are made, BRA's trips will automatically be reduced by 10 to 30 percent. It is interesting to note that the AVOs for work trips are raised for the 2005 Proposed plan over those included in the 1989 Calibrated model by an additional 9 percent, further depressing proposed traffic impacts. The only justification given for this is that the CA/T project had a similar figure.

4 6. Mass Transit is Undefined and Unrealistic - Whatever is denied to vehicles must be given to transit. The BRA's tightly woven vehicular traffic predictions depress the auto mode share and hence it must be assumed that over 15,000 trips a day are made by transit in order for even a semblance of integrity to touch this study. This number contrasts with about 2,400 riders a day currently carried by the water shuttle and private shuttle buses in the yard and is a fearsome figure. Thus while the current yard buildout is about one third of what BRA proposes, transit ridership will have to go up 6 times to support the modal splits predicted by BRA. How realistic is this? The SEIR suggests a traffic management association but no commitments are made and no funding is identified. Who will fund this association? What are the penalties for non participation? Will this association be confronted with such an impossible traffic situation at full development that it will throw up its hand in despair? This plan provides little or no infrastructure for transit. If the BRA 2005 transit projection (Tables 52 & 53) is to be met, it seems that 268 daily trips of 30 passenger shuttle buses and 185 daily trips by 38 passenger water shuttles would be required. Where is the bus staging area? This is an enormous commitment of resources to be met by a still mythical group. It is also a broad leap of faith for a community whose future welfare may well depend on a successful transit program.

2 7. Future cultural/recreational traffic demand underestimated.
While the BRA 2005 plan ascribes 4078 daily vehicle trips to the proposed Aquarium and some 2441 trips to the National Park Service, it attributes only 253 vehicle trips to the total

7498 daily trips to some 206,000 SF of facilities in the Ropewalk, Chain Forge, and YMCA recreation area. While no doubt a large number of these trips will be incidental to visits to other facilities in the Yard, it would appear that mere curiousity would not sustain such a large number of visits. If there is nothing to see in these facilities, tourists will quickly learn to avoid them and there is question as to whether they would ever be developed at all if such were the case. On the other hand, if these facilities are viable attractions, it is inevitable that they will attract their own share of vehicular traffic. A similar situation is encountered with respect to Other Facilities of Public Accommodation which are programmed for 57,000 SF (hopefully including facilities at the ends of Piers 3 and 4 not otherwise identified) and NO TRAFFIC IS ATTRIBUTED TO THEM! This is unacceptable. To underestimate the potential traffic demand of these uses could be a serious mistake. We request that this issue be re evaluated.

8. APPROVED PLAN - Fictitious and Outrageous.- We find the SEIR's modus operandi of comparing of 1998 and 2005 traffic projections with what is described as an APPROVED PLAN to be outrageous. The Approved Plan is represented as the total amount of buildout which has been approved by EOEA in the 1977 EIR and subsequent amendments. While it is true that certain changes to the original plan have been approved by EOEA, it is also true to the best of our knowledge that EOEA was not given a summary of the total amount of development assumed approved by BRA nor apprised of their cumulative traffic impacts between 1977 and 1991. In his January 2, 1991 response to BRA's latest Notice of Project Change, your predecessor indicated that the current plan was "considerably changed from the plan described in the 1978 FEIR". He refused to rule at that time that traffic, air quality, infrastructure, historic preservation, and waterways had been adequately studied on a Master Plan Basis. The very thought, therefore, that we should be comparing the proposed development with a helter-skelter array of projects which have never been seen in their entirety nor studied for traffic impacts, is unacceptable.

Let's look at the record. In 1977 the following development was approved:

| | | |
|---|---|---|
| Housing | 1500 units | (approx. 1,520,500 SF) |
| Retail/Commercial | | 80,000 SF |
| Institutional | | 450,000 SF |
| Office | | 60,000 SF |
| Hotel | 700 Rooms | (approx. 700,000 SF |
| Light Industry | | 250,000 SF |
| TOTAL | | (approx.) 3,060,500 SF |

A review of the various amendments and changes reveals EOEA approval of the following ADDITIONAL or LESS development

1. Office/research-- Bldg 149---------- +700,000 SF
Bldg 1 Biomed Research- +330,000 SF
TOTAL---+1,030,000 SF

2. Hotel----------Parcel 4----------(-300,000 SF)

NET EFFECT:---------- +730,000 SF

New approved total---------- 3,790,500 SF

(We have not included Bldg 149, Bldg. 42, or the Bricklayers' and Laborers' Housing as additional development as they are within the stated limit of 1500 units. We have not included Pier 5 as it appears to us that Pier 5 is not approved at this time. If it were considered approved, it would also be within the 1500 unit limit. We have not included the Bldg 114 boat facility as it would be within the 250,000 SF Light Industry limit.)

We have created two tables below which compare the total of approved additional development as we see it with what BRA has included in its APPROVED DEVELOPMENT totals:

| | EOEA APPROVED DEVELOPMENT OUR TOTALS | BRA'S TOTALS |
|---|---|---|
| Housing | 1,520,500 SF | 2,020,500 SF |
| Retail | 80,000 SF | 48,400 SF |
| Institutional | 450,000 SF | 206,000 SF |
| Office/Research | 760,000 SF | 1,562,000 SF |
| Hotel | 400,000 SF | 700,000 SF |
| Light Industry | 250,000 SF | 0 SF |
| TOTAL | 3,790,500 SF | 4,536,900 SF |
| Other | | |

We recognize that any plan will not develop in exactly the same manner as planned. We accept however reluctantly the nature and extent of the Navy Yard development to date. We do, however, have a problem with the idea that so much of the original development can be changed without a MEPA notification AND THAT CHANGE CAN BE VIEWED AS AN ENTITLEMENT. Whether a technicality can be found to explain away this sad situation, the fact remains that NONE OF THIS DISCREPANCY HAS BEEN REVIEWED BY YOUR OFFICE. The concept of an APPROVED PLAN should

be rejected and the traffic impacts of the proposed project should be compared with the original 1977 predictions or some other meaningful milestone.

5 9. Impact on Local Streets Downplayed. At the heart of community concern over Navy Yard development is the possibility that if more traffic than predicted is attracted to the Yard, or if the arterial /expressway systems break down for any reason, or if the parking supply is inadequate, the streets of Charlestown will be used for the diversion of excess vehicles and for the satisfying of excess parking demand. It appears to us that the SEIR deals with the local street issue in a totally arbitrary manner. It was simply decided to ASSIGN 30% of general traffic and 15% of Aquarium and NPS trips to Warren, Medford, and Terminal Streets and assume that the rest of the traffic would go through City Square. There is cause for concern with this assignment. First, turning movements are not reported at Warren Street so that we can judge their level of realism. Secondly, the traffic on Medford Street is predicted to be less than existing by one third, although Yard traffic will reportedly double. While this would be delightful, it is difficult to understand what forces will make it occur. Finally, Terminal Street is relegated to a minor role, carrying no more outbound traffic in the PM peak than is currently the case, while at the other end of the system, at City Square, traffic has tripled and LOS F is well entrenched. As such an "assignment" of traffic could work to diminish the justification for the proposed Medford Street Bypass, this assignment must be explained in more detail.

5 10. Yard Traffic Makes Chelsea Street an Artery- It has been stated previously that we believe the traffic projections for the 2005 Proposed Plan are overly optimistic. Even with the rates the report does allow, it appears that things will be so bad that a "mitigating measure" has been proposed for City Square. This measure calls for modifying Chelsea Street to create another peak hour lane and eliminating parking during peak hours. During development of the CANA project, it was the community's expressed desire to add parking to Chelsea St. to confirm its intended use as a local street rather than a major arterial. The community felt entitled to the easy access to the waterfront that such a street would permit after decades of being belted with arteries, expressways, and overhead ramps. The waterfront had long been obscured by the overhead expressway and buildings from public view. Now that that view is opening up, the level of development proposed in the Navy Yard will create a moving vehicular barrier on Chelsea Street to said waterfront access. If islands are moved at City Square and free right turns are permitted from No. Washington St. onto Chelsea St., pedestrians desiring to cross at that location won't have a chance. Mitigation should be directed at developing a viable haul road corridor and not at trashing City Square with more lanes of traffic.

6 11. Parking Plan is Inflexible. BRA has developed a plan that it claims will deal with the traffic generated by the project. The plan entails utilizing a lot across the Little Mystic Channel for overflow parking during peak periods of the year. The parking approach is clearly unwieldy, requiring all but a couple of hundred lucky surface parkers to use garages within the Navy Yard, one of which is 9 stories tall. It is not clear that the internal roadway system is designed to deal with parades of motorists trying first one and then another garage in a search for a vacant space. What is clear is that this parking plan will work only if parking demand actually turns out to be at the level the plan proposes or less. It will not work if traffic is greater by a third or a half or or 70 percent as we have suggested previously. There is simply no more room to build any more parking than currently intended. The concept of shared parking is itself unproven. Unfortunately the parking analysis puts all of its faith in this concept in calculating parking requirements. We are not so ready to put our faith in this plan.

What is the point of all this counter- analysis? We are not attempting to compete with professional traffic consultants, which is impossible for a volunteer citizens' group. We feel that we have pointed out flaws and inconsistencies in the SEIR traffic report which would be evident to anyone examining the logic employed in this and previous reports on the subject. The fact that we have been able to identify so many areas of controversy tells us that this plan requires the scrutiny of disinterested, qualified professionals before approval is granted by EOEA. We hope that you will provide that professional review.

What do we want? We want a level of development in the Charlestown Navy Yard that can be supported by the existing highways and streets without creating massive inconvenience and health problems for residents of the community or bringing about a de facto return of the necklace of major highways that have choked Charlestown for years. We want the Navy Yard to be a place where work, residence, and recreation occur in balance and in harmony, not a place dominated by traffic where people are hard pressed to cross the street. We want a successful Navy Yard development but not one that will litter the rest of Charlestown with unwanted traffic and parked cars as a result of failure of the highway system or inadequate Navy Yard parking. We believe that traffic analyses should be approached in a prudent manner that honestly employs the latest techniques of prediction and produces results which recognize the limitations of those techniques. What this SEIR presents is a developer's traffic analysis which lacks any sense of balance or limitation. We hope some of those who study the SEIR will reach the same conclusion and be guided accordingly.

C

June 25 1991
ad hoc Coalition

## Open Space

The Intent

What are the open space issues in the Charlestown Naval Shipyard?

According to CZM Consistency requirements, as quoted in your May 22, 1991, decision on Approval of the Boston Harborpark Plan Pursuant to 310 CMR 23.00, p. 5-6, a key CZM principle relating to developed harbors is that "the urban waterfront is special not only as a place to engage in commerce but also to enjoy a rich heritage of visual, cultural, and historic amenities. Recreation in its many forms attracts more people to the Massachusetts coast than any other use, supporting a multi-billion dollar tourist industry and adding immeasurable to the quality of life for residents and visitors alike. Making the shoreline available for an increasingly greater segment of the population is a central concern of the CZM program, especially in the Boston metropolitan region where demand for coastal recreation opportunities far exceeds the supply."

The same letter of May 22, 1991, speaking of compliance with tidelands consistency requirements (p.17), also analyses the regulation embodied in 310 CMR 9.00. "The Waterways regulations contain two numerical standards whose effect on the provision of open space is interrelated: 310 CMR 9.51(3)(d), which limits the site coverage of nonwater-dependent buildings to approximately 50%, and the 310 CMR 9.53(2)(b), which requires that approximately half of a project site on Commonwealth tidelands consist of exterior open spaces for public use and enjoyment."

The Reality

But what is the reality in the Charlestown Navy Yard?

The 50% rule has been waived on a project by project basis in this historic and huge redevelopment of a national historic site. Even with the Constitution in the National Park Service and the Aquarium in the newly redeveloping Navy Yard as terminals pulling people through this historic area, with the double interpretive loop enticing them to explore the industrial points of interest, the new planning for Yard's End dramatically decreases opportunities for visitors to root themselves in the knowledge that they are in an essentially waterfront area.

The open space already provided in the Yard is of superior quality. Shipyard Park, protected from development by community outrage over the initial siting of the Aquarium, is one of the few places in Charlestown where all segments of its neighborhood come to enjoy the recreational facilities and views of the drydock (views of the harbor itself having been blocked by the bulk of Flagship Wharf). Pier 4 bustles with activity, and Harborwalk is one of the special contributions of Boston harbor planning to all of us.

1 But what happens as one approaches Yard's End? The Second Avenue Pedestrian Mall, which was originally planned as a "walk to the sea" is abruptly blocked. Not only is there no promise or glimpse of a waterfront. It is not even apparent that a waterfront indeed exists along Little Mystic. Here we are in an historic site that had an industrial waterfront use. And we effectively cut off that part of the waterfront which is, itself, industrial and a vital reaffirmation that lively harbors not only support fish but also industry. Why? Because we "need" massive buildings with broad footprints that create wind tunnels because they are so close together. Are they water related? No. What's more, building 114, which was water related, now instead of remaining a community waterfront resource, becomes a parking facility that supports the huge development that subsumes a potential area for public open space at the end of the Yard. A double loss.

So what do we have at Yard's End for public enjoyment and waterfront use? The Aquarium, which will benefit all of us. Then a paved area that serves the purpose of a staging area for both the Aquarium and the boats docking alongside the Aquarium. Calling it a "park" does not make it so. But at least one will be able to sense the water and perhaps even see a boat during the approach on First Avenue. Fortunately, during the 106 review, one of the agencies required an open area across from Building 106 on Parcel 6. Although that area will not open up the waterfront, at least it will minimize the claustrophobic feeling driving down 16th Avenue or approaching the end of Second Avenue.

The Harborwalk extension along Little Mystic adds valuable square feet to the Plan's total. But what a useless, frightening area. A twenty-foot wide walk bounded on one side by a wall of massive buildings with garages at the Pedestrian level all the way to Gate 6 (hopefully there will be a connection and not a cul-de-sac). With no mixed use at Yard's End, when the Aquarium closes each night, that

part of the Navy Yard will become abandoned. That portion of Harborwalk has the probability of being a frightening place, closed to public view.

Illogical Inclusions

First Avenue--the one and only transportation spine within the Navy Yard wall. An open space? More likely a traffic-choked frustration. And since when is a street outside the Navy Yard walls considered Navy Yard open space? As mandated by the broadly-based community group which worked on the 1988 plan (unanimously passed by the Charlestown Neighborhood Council), there needed to be thought of knitting together the Charlestown community by considering neighborhood access to and from the Navy Yard. But it was never considered part of the development area. Nor was the National Park Service piece. As presented on page 212 of Vol. 1 of the Draft Supplemental EIR, "In its entirety, The Charlestown Navy Yard consists of 135 acres, 30 of which are owned by the National Park Service and managed as a National Historical Park. The Boston Redevelopment Authority's jurisdiction covers the remaining 105 acres.." How, then, did the already-existing open space in the National Park Service become open space attributable to the development in the rest of the Navy Yard? What kind of logic is that? The intent of open-space planning for making the water accessible, enhancing public enjoyment, and scaling new waterfront buildings for sight-lines and accessibility to the water becomes a farce.

2 The development at Yard's End becomes a net loss of open space and visual and pedestrian accessibility to the water's edge.

Incomplete Information

3 In order for any of us to make a judgment on the accuracy of the percentages of open space, the BRA must give us the tools. We need to know each piece that is included in "Total Development Area" (totals of New Development area, Historic Monument Area, etc.), how much of each category is deducted from that number (water, Historic Monument Area, streets, etc.), and the square footage of each park (is water included or already deducted?), each plaza, each courtyard, each pier, Flirtation Walk, each street, or any other part of the open space plan that, together with the numbers for pedestrian ways and harborwalk, add up to the total open space in the SEIR. Only then will it be possible to understand how that 50% of the total development area was derived and what the quality, recreational value, and access to the water will be.

Conclusion

The opportunity to redevelop the Charlestown Naval Shipyard into a vital community that is consonant with its historic, industrial, water-related character is in danger of being lost. The Charlestown community could be missing an opportunity of adding quality open space on the waterfront to its meager inventory of recreation and park space. Tourists could be missing the sense of a consistent historic site. What is already here is, for the most part, very special. The Aquarium and the details of the double interpretive loop also sound thoughtful and interesting. But Yard's End's density, size, and massive floorplates (added to the fact that the remediation of hazardous materials in parcels 5, 6, and 7, must be capped and will be sealed in by paving) mean that the meager additions to open space will be in large part unusable, ungreen, unsafe--and largely unwater-related. The logic of making each project on the waterfront 50% open in order to create visual and physical access to the working harbor for all its residents and visitors is turned on its ear.

At least be honest enough to admit that the major exceptions from Chapter 91 accepted by you are far from the intent of the regulations, but that the huge concessions were made in the interest of attempting to restart the economy by betting on biotech. Any other defense seems a travesty.

D

July 25, 1991
ad hoc. Comm

## Charlestown Navy Yard Masterplan
### Comments on Adherence to Chapter 91 Regulations, Heights and Massing.

It is remarkable to us, as we read the decision on the *City of Boston Request for Approval of the Boston Harborpark Plan Pursuant to 301 CMR 23.00* how consistently the Charlestown Navy Yard is noted as being in direct conflict with the Chapter 91 Regulations. Rather than requiring the plan be amended to reflect Chapter 91 Regulations, Secretary Tierney has chosen instead to attempt to justify the BRA's deviations from the regulations. Her role as the state's most senior environmental regulator charged with protecting the state's environmental resources is extremely compromised in her decision. The following examples will make this point obvious.

### OPEN SPACE

Secretary Tierney explains in her decision that "half of the projects sited on Commonwealth tidelands (which includes the Navy Yard) must consist of exterior open space for public use". The goal, as we understand it, is to provide open space at the water's edge to ensure public access.

The most common use of the term "project" would be to identify an individual building site, not an entire 105 acre site (this number excludes the National Historical Park which has never been part of the BRA's redevelopment effort and has only recently been included in the Master Plan due to it's obvious benefits in meeting the open space requirements).

1 The Secretary has said nothing regarding the BRA's Navy Yard plan to meet the 50% open space requirement anywhere within the 105 acres (we predict inland of the waterfront area due to financial demands) rather than on the individual parcels being developed that would insure some waterfront open space. Has the Secretary even asked if the 50% open space provided for in the plan is being met on land that is beyond the Commonwealth tidelands (such as Chelsea Street)? Is she aware that the BRA has included water, roadways and has taking other liberties in their tallying of the open space? Does the Secretary even care about these important issues?

She has not suggested that the BRA take their approach to its' logical conclusion by requiring the BRA to provide 52.5 acres (50% of 105 acres) of open space as per the regulations and produce a list of where that open space is to be located. Rather, she has suggested some "technical improvements" that require the applicants (the BRA) keep their own running tally of the amount of open space.

Is the State in the habit of asking their applicant to be their own watch dog? Does she really believe that some unknown number of acres of open space located anywhere on the 105 acre site will satisfy the law?

### FACILITIES OF PUBLIC ACCOMMODATION AT GROUND LEVEL

The Secretary also reiterates in her decision the Chapter 91 requirements "that the ground floor of buildings containing private, non-water dependent uses be devoted to facilities for public accommodations". The intent of Chapter 91 regulations is to encourage the use of Commonwealth tidelands for public functions. A penalty is intentionally placed on non-water dependent uses. Secretary Tierney then goes on to conclude that since their are so many public functions such as the "hotel" in the Navy Yard, that she will only require 40% of the ground floor in non-water dependent uses be devoted to public accommodations.

Chapter 91 continued

2 We fail to see the justification for such an extreme deviation from the regulations. Clearly, all of the ground floor areas are required to be devoted to public accommodations. If she intends to compromise on this issue, then she should feel obligated to provide something additional to the public such as more open space, or lower building heights.

Instead, the Secretary has elected to arbitrarily modify the Chapter 91 Regulations without any additional compensation to the public. This attitude is disgraceful.

3 **SETBACKS**

The regulations require a "water-dependent use zone which runs parallel to and landward of the present shoreline". The Secretary also states that the "width (of the use zone) is proportional to the (building lot's) depth or pier dimensions (generally, she uses 25% of the lot's depth to determine the size of the use zone)".

The BRA has instead elected to use a setback figure ranging from 20' to 35'. The Secretary applauds this approach, even though the individual lots in the Navy Yard are deeper than 150' and would require setbacks larger than those proposed by the BRA.

It is difficult to understand what has motivated the Secretary to ignore her own Chapter 91 Regulations. She has not looked at the BRA proposal with an analytical eye towards a thorough comparison to Chapter 91. She has instead glossed over areas of deviation from the regulations. Why has she done this?

4 **HEIGHTS**

The Chapter 91 Regulations are quite clear regarding height restrictions. Non-water dependent uses within 100 feet of the high tide mark are limited to 55'. Beyond the 100' setback, the heights may increase 1/2 foot for each additional one foot setback.

Yet, in the Charlestown Navy Yard, which is considered the *single largest historic preservation project in the country*, where the majority of the buildings range from 50' to 75', the Secretary has decided that 155' (with massive bulk) is acceptable within 20' of the waters edge!! In fact, the <u>average</u> height for the new facilities in the Navy Yard, approved by the Secretary, is closer to 110'. The Secretary's attempt to rationalize this decision is pitiful at best. Clearly there is no excuse for such a blatant disregard for her own State Regulations.

It is clear that Secretary Tierney has no interest or intention in upholding the state Chapter 91 Regulations in the Charlestown Navy Yard, an enforcement responsibility she has been hired to do. It is difficult, as residents of Charlestown and users of the Navy Yard public space, to understand why the Secretary has turned her back on Charlestown. We can only surmise that the residents of Charlestown don't matter. That the historic and moderate scale of the Navy Yard and its' widely admired waterfront don't matter. And, that development money is much more important to the Commonwealth then it's people or it's natural resources, which Ms. Tierney is directly responsible to and directly responsible for. It is a sad day in Charlestown.

ISJ-040

E

July 25, 1991
ad hoc Coalition

# HISTORY: AD HOC COALITION

We came together to promote the historically sensitive economic development of Charlestown and the Naval Shipyard. Our genesis was the Planning and Zoning Committee set up by the Charlestown Community Council to work with the BRA on the development of a master plan for the Yard. Outlined below is a brief chronology of our involvement in the Master Planning Process in 1988 as taken from the BRA's Master Plan Executive Summary, published May 10, 1988:

- Soon after receiving title to the Charlestown Navy Yard from the United States General Services Administration in 1978, the Boston Redevelopment Authority embarked upon a working Master Plan/Environmental Impact Report (EIR), which established the original development program for the Navy Yard.

- To begin discussion on this new Master Plan, the Boston Redevelopment Authority hosted an introductory Navy Yard Master Planning meeting with the Charlestown Neighborhood Council on April 7, 1987. Two options for a new Navy Yard Master Plan (concentrating on the four vacant "Yard's End" parcels) were presented for discussion.

- The "full-build" plan included a total built square footage for the Yard's End parcels of 2,025,120 square feet. These additions would have brought the overall "full-build" Navy Yard development plan to a build of 6,143,720 square feet, translating into an overall Navy Yard Floor Area Ratio (FAR) of 1.34.

- The "reduced-build" option presented at that time included a total build on the Yard's End parcels of 1,571,320 square feet. Addition of this Yard's End total would have brought the overall amount of Navy Yard development to 5,193,120 square feet, at a FAR of 1.13, which was 18% less than the FAR of the "full-build" option.

- A draft traffic study undertaken at that time by TAMS Consultants Inc., concurred with the Charlestown community that these levels of development, with no improvements in the means of access or public transportation to the Navy Yard, and under the original design of the Central Artery North Area (CANA) City Square, would create unacceptable levels of traffic.

- At that time, the Charlestown Neighborhood Council formed a Planning and Zoning Committee to undertake the simultaneous tasks of creating an Interim Planning Overlay District (IPOD) to re-zone Charlestown, and establishment of a new Master Plan for the remaining buildout of the Yard. The BRA made a commitment that no new development, except that already in the "pipeline", would be allowed at the Navy Yard until this Master Plan was completed. This master planning process began in earnest in early January, 1988, after the groundwork for the IPOD was completed. At that time, the Boston Redevelopment Authority staff, on January 21, 1988, presented a "workbook" to the Planning and Zoning Committee that included detailed "up-to-date" existing conditions in the Navy Yard, detailed building characteristics (heights, FAR's, square footage, and uses), a set of general square footage options for the Yard's End parcels and their effect on public benefits and parking, and a summary of key issues to be addressed through a Master Plan.

- During the next four committee meetings, these key issues, including affordable housing, traffic and parking, appropriate mix of uses, open space levels, and financial, environmental and urban design considerations, were examined. A new suggested Navy Yard Master Plan option was prepared in response to these community comments, and was presented to the community on March 24, 1988 for further discussion.

- This option included an overall build on the Yard's End parcels totalling 1,650,000 square feet. This option would have brought overall Navy Yard development totals to a total build of 4,710,000 square feet, translating to an overall Navy Yard FAR of 1.029, down 30% from the original "full-build" option, and down 11% from the original "reduced-build" option.

- On March 31, 1988, the Raymond Group (the principal private developer at the Navy Yard), presented an alternative plan to the Boston Redevelopment Authority Master Plan option. This plan featured a build on the Yard's End parcels of 2,059,000 square feet, 409,000 sf (25%) more that the BRA proposed plan. This option would have brought total Navy Yard development to a total of of 5,119,200 square feet, or an FAR of 1.12, which was 9% higher than the FAR of the BRA's new suggested plan.

- The merits of these two plans were discussed during the next two meeting, with the assistance and benefit of a new TAMS Consultants traffic study which gave a general explanation of traffic generation impacts at the Navy Yard in the context of the latest BRA proposed plan. The TAMS study showed that the latest Boston Redevelopment Authority suggested plan, with certain public transit improvements (achieving a 45% model split and under the new Central Artery North Area (CANA)/City Square design), would produce slightly higher, but acceptable levels of traffic generation, and would not significantly increase traffic congestion at City Square. It was also explained that additional transit/traffic improvements (water shuttle, gate widening, additional gate access points, and comprehensive individual project Transportation Access Plans) would improve these already acceptable traffic/transit conditions even more.

- With these traffic/transit conditions in mind, members of the Committee and the community at large, asked that a "new" revised Navy Yard Master Plan option, incorporating their new suggestions and recent concerns, be prepared and presented by the Boston Redevelopment Authority. This "new" revised Charlestown Navy Yard Master Plan was prepared and presented to the Charlestown Planning and Zoning Committee and the Charlestown community on Tuesday, May 10, 1988.[1]

The community's response to this meeting is outlined below in an excerpt from the Charlestown Master Plan Report, August 11, 1988, prepared by the Planning and Zoning Committee of the Charlestown Neighborhood Council.

> "This report was prepared by the Planning and Zoning Committee of the Charlestown Neighborhood Council as a response to the May 10, 1988 Master Plan Executive Summary for the Charlestown Navy Yard as presented by Mr. Stephen Coyle, Executive Director of the Boston Redevelopment Authority (BRA). It is a result of many public committee

[1] Taken with minor edits from the narrative of the BRA's May 10, 1988 Executive Summary, Charlestown Navy Yard Master Plan

meetings at which the BRA presented in detail the proposed plan. Community representatives responded with goals for the development and with an outline of issues to be resolved as pre-requisites to development."

"The Planning and Zoning Committee of the Charlestown Neighborhood Council supports the maximum total Navy Yard build-out of 4,611,600 gross square feet (Stephen Coyle, Director, BRA, May 10, 1988) and our responses and recommendations are based on that maximum. Public weekly or bi-weekly meetings were held from January 7 to August 4, 1988 by the Committee. The meetings were conducted under the auspices of the Mayor's Office of Neighborhood Services and members of the Neighborhood Council and panel of interested Charlestown residents. This concept was the idea of Council Chairman Dennis McLaughlin, who is to be particularly thanked for his help and vision."

On the night of August 11, 1988, the Charlestown Community Council unanimously adopted the recommendations of its Planning and Zoning Committee. It is important to note that this plan called for 4,611,600 square feet of development. The core of the Ad hoc coalition membership came from the panel which prepared the August 11, 1988 report.

On September 19, 1988, Mayor Flynn turned the August, 1988 Plan upside-down while hosting a meeting during which he revealed the Aquarium sought Dry Dock 2 and Shipyard Park for their relocation. Steven Coyle, Mayor Flynn and others held a press conference on September 22, 1988 to announce the Aquarium's relocation to Dry Dock 2. The Charlestown community learned later that talks between the New England Aquarium and the BRA had been on-going since March 1988. It is an understatement to suggest that many community residents felt betrayed by the BRA's failure to reveal these negotiations during the Planning and Zoning Committee meetings. Had these negotiatios been revealed, the Aquarium could have been factored into the Zoning Committee's report of August 11, 1988, and a level of trust between comunity and city administration could have been maintained.

In October and November 1988 it became apparent to many community activists that the very serious issues of over-build in the Yard (the Aquarium proposal added 350,000 square feet and unquantifiable traffic and parking congestion) were not being addressed by the Charlestown Neighborhood Council. The Ad hoc coalition began as a small group dedicated to meaningful public discussion of critical issues surrounding the Aquarium's relocation. Throughout the balance of 1988, 1989 and 1990 we expanded dramatically and worked to improve the relocation plan of the Aquarium and the development plan for surrounding Yard.

On April 24, 1990, the New England Aquarium agreed to the Ad hoc coalition's original counter offer to Dry Dock 2/Shipyard Park. On that date, the Aquarium presented a much improved plan to build a 280,000 square foot facility in Dry Dock 5 and on the adjacent Pier 10 and Parcel 5.

The Ad hoc coalition supported this relocation and was elated, like most Charlestown residents, that the Mayor and the BRA finally understood that Dry Dock 2/Shipyard Park were "in perpetual open space" for the full enjoyment of all, not just Aquarium visitors.

Meanwhile, planning for the Harbor Park District Zoning Plan was progressing under the auspices of the BRA. On November 17, 1989 the BRA's Neighborhood and Planning Office released the first draft of the Harbor Park Plan. Outlined below are excerpts from that draft which illustrate the descrepancies between the plan's downtown and Navy Yard shoreline treatment. The Ad hoc coalition continues to support downscaling the denser development in the Yard to levels allowed on the downtown waterfront.

**Downtown Waterfront (Northern Ave Bridge to line between Long & Central Wharf)**

- 50% open space requirement
- No building to be constructed within 50' of a pier end and building heights step up from the water landward as follows:

**Charlestown Navy Yard (50% open space requirement by existing facilities no additional open space planned or required)**

- Charlestown Navy Yard Housing Priority Area
  - -- 55' height limit within 150' of ends of piers
  - -- 75' height limit landward of 55' zone

- 50' height setback from ends of piers and bulkheads
  55' height from 50' to 150' from pier's end
  75' height from 150' to 200' from pier's end
  155' height from 200' from pier's end
  75' height from 150' to 20' from pier's end
  155' height from 20' from pier's end

- FAR 4

-- 110' height limit with 25% affordable housing landward of 55' zone

- Yard's End

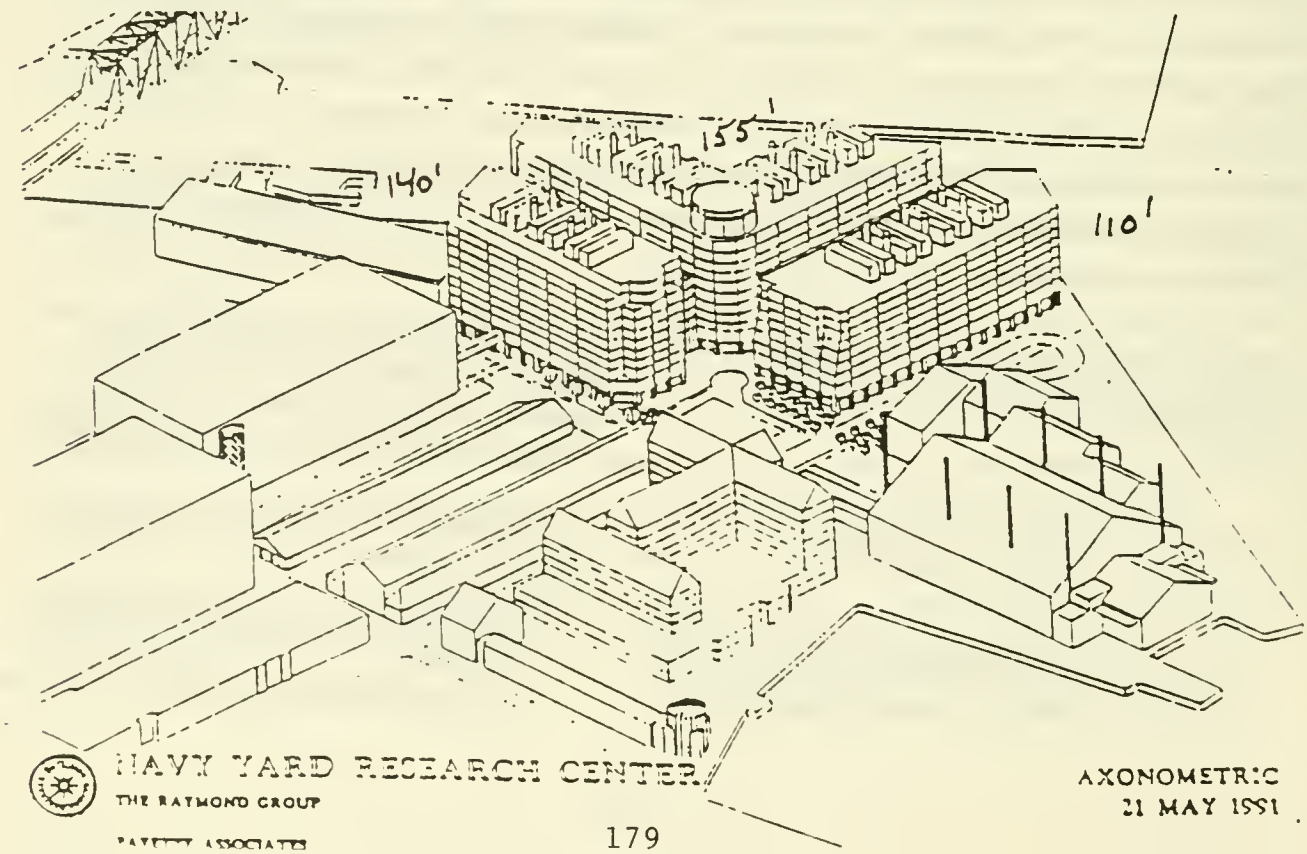
-- 155' height limit on Parcel 4
-- 110' height limit on Parcel 5
-- 155' height limit on Parcel 6, one building to 200'
-- 155' height limit on Parcel 7

- Historic Monument Transfer Area

-- 85' height limit on land
-- open space requirement limited due to existing historic buildings.

- No FAR

This plan was approved by the Boston Board of Appeals on December 11, 1990 despite the dramatic differences between treatment of the downtown waterfront and the Yard's End area. Subsequent to the Board of Appeals approval of the Harbor Park Plan, Governor Dukakis' outgoing Environmental Affairs Secretary granted approval for go-ahead for two buildings at Yard's End at the heights densities and set-backs allowed in the Zoning Plan. An illustration of these buildings appears below.



On May 22, 1991, Governor Weld's Environmental Affairs Secretary issued her affirmative decision on the City's Harborpark Plan granting waivers to a substantial number of Chapter 91 regulations. The Ad hoc Coalition protested strongly, but on July 2, 1991 she denied our request for reconsideration.

F

July 25, 1991
ad hoc Coalition

THE ad hoc COALITION
24 December 1990

Secretary John DeVillars, EOEA
100 Cambridge Street -- 20th floor
Boston, MA 02202

Attention: MEPA Unit
RE: File # 2383, Charlestown Navy Yard Redevelopment

Dear Secretary DeVillars:

The ad hoc Coalition has grave concerns regarding the fact that changes have been made to the recent Notice of Project Change for the Charlestown Navy Yard since it was filed with your office. And, according to your staff, your office is awaiting still further changes. This only adds to the confusion and obfuscation which have characterized the so-called 1990 Master Plan.

We strongly object to the fact that the public does not have the opportunity to review and comment on the new information. The public should be given such an opportunity before a decision is rendered.

In addition, we re-iterate our opposition to anything less than a full Environmental Impact Report (EIR) for the Navy Yard. Anything less--by which we mean segmenting the overall project into parts which may or may not have review--is counter to MEPA Regulation 11.16: "Segmentation" and the direction of Navy Yard planning since 1987.

## UNDERSTANDINGS TO DATE & MEPA REGULATION 11.16 "SEGMENTATION"

Former Secretary James Hoyte's August 12, 1987 determination on the Notice of Project Change for Building 197 and Pier 5 concludes: "Beyond this point, I anticipate a full review of the new Master Plan for the Navy Yard. At that time, questions of overall density and effects in the larger community will be addressed." It is our clear understanding that at the time Assistant Secretary Steve Davis informed the BRA that no additional projects would go forward until a revised master plan was in place. So when in July of this year, the BRA tried to advance the Parcel 4 and Parcel 7 projects through a community review, we wrote to Mr. Davis' successor, Janet McCabe, for a clarification of EOEA policy. We draw your attention to our letter of July 26, 1990, enclosed. Opposition to these projects was so strong--for the by now well known reasons of density, inadequate parking, minimal open space and an incomplete Master Plan--the Charlestown Neighborhood Council did not vote on these projects.

On August 17, 1990 Ms. McCabe responded that she expected the BRA to file "...a Notice of Project Change, that will be in the nature of a project update and proposal for future action. I believe

that this is a reasonable next step for this office to take to evaluate how the BRA would like to proceed and how that conforms with the requirements of the MEPA process and understandings that have existed to date."

The Notice of Project Change filed by the BRA requests a waiver of a full environmental review of the Navy Yard. The BRA justifies this request by (1) the misrepresentation of facts--notably, the 1977/78 and 1990 buildout and traffic comparison figures were manipulated to appear similar; and (2) segmentation of the total project, which serves to obscure the impacts of the overall development.

We understand that in response to the BRA's request your staff is considering a determination that would require:

(1) no review of the Phase 1 projects--the Hotel, Building 1 on Parcel 7, and the Marina.
(2) a Draft EIR for the Master Plan, a document characterized by your staff as containing "not much information."
(3) an Environmental Notification Form for the Phase 2 projects, which may or may not result in an EIR. This includes the Aquarium and Buildings 2 and 3 on Parcels 6 and 7!

Furthermore, according to your staff the BRA refuses to complete the Master Plan before a determination is made on the Phase 1 projects--approximately 980,000 GSF of non-water dependent uses; and the Phase 2 projects --the Aquarium (325,000 GSF) and approximately 1,080,000 GSF of non-water dependent uses. In other words, the Master Plan, which holds the key to evaluating whether this development plan will work, is being held hostage. To allow this makes no sense. And, is contrary to MEPA Regulation 11.16:

> "In determining review threshold status and conducting project review, the entirety of a proposed project, including likely future expansions, shall be considered, and not separate phases or segments thereof. In determining whether two or more projects are in fact one project, all circumstances are to be considered, including but not limited to time interval between phases, whether the projects, taken together, constitute a common plan or scheme, and whether environmental impacts are separable. Ownership by different entities does not necessarily indicate that two projects are separate. It is the intent of this rule that projects not be segmented or phased to evade or defer review."

We recognize your discretionary power, but we stress that the magnitude of change between what was contemplated in 1977/78 and what is proposed now is so gr and the access and parking

challenges of the site so complex, that only a full EIR--with no exemptions--can adequately assess the plan and protect the public's interest in this unique waterfront site which is also a National Historic Landmark.

## INCREASES IN ENVIRONMENTAL CONSEQUENCES

As we submitted in our letter of November 27 there are significant increases in the environmental consequences of the 1990 proposed plan over the 1977/78 plan--due, in part, to the increase in total buildout from 3,000,000 GSF to 5,000,000+ GSF with commensurate increases in traffic and air pollution. The thirteen-year time lapse since the last EIR has likewise increased the environmental consequences of the current plan. Simply put, the Charlestown of today is dramatically different from the Charlestown of 1978. That striking change, along with highway construction in Charlestown and mega-projects proposed at North Station and completed in East Cambridge, have created impacts not anticipated in 1978. In addition, the current economy calls for close scrutiny of the likelihood of funding for the massive increases in Mass Transit, the construction of a by-pass roadway before the Navy Yard development begins, and design changes at City Square--all of which are necessary to make the proposed level of development work.

Furthermore, it is our understanding that the semi-annual "review and response" process mandated in the Addendum to the 1977/78 FEIR has not taken place, so that the on-going, incremental impacts of what has been built to date have not been evaluated as required.

## SEGMENTATION & PARKING PLAN

The purpose of a Master Plan is to look at the cumulative impacts of an entire project. As must by now be clear, traffic and parking impacts are a major concern within the Charlestown community. At the very least, the Traffic Impact Analysis (TIA), which we have consistently questioned, now needs an update. Changes have been made since its completion in February 1990--among them: the elimination of an 1,100 car garage, and Use changes (from Research to a 55/45 split between Research Uses and Office Uses) which will add over 2,000 vehicle trips a day and necessitate an additional 700 parking spaces on top of the already admitted 500-space summer shortfall for a 1,200-space deficit. That is bad enough. But the BRA's parking plan relies on shared parking spaces. Therefore, how can an individual project be assessed without knowing the entire plan?

In addition, on December 11, 1990 the Boston Zoning Commission passed a Zoning Amendment with no specific off-street parking requirements for the Aquarium, Retail and Residential Uses. BRA staff testified that there was a 700-space surplus in Building

199. Even if this were true, it is clearly inadequate for the parking needs of these Uses.

The Zoning Commission also allowed the following Gross Floor Area increases:

| | | | | |
|---|---|---|---|---|
| Parcel 4: | from | 390,000 | to | 440,000 |
| Parcel 5: | | 275,000 | | 325,000 |
| Parcel 6 & 7: | | 1,100,000 | | 1,625,000 |
| Piers 5,6,7,8,9: | | 198,000 | | 273,000 |
| | | 1,963,000 | | 2,663,000 |
| | | | TOTAL INCREASE: | 700,000 |

In the case of Parcels 6 and 7 this increase partially includes parking, but there is a surplus increase for other uses that were not included in the TIA. In short, the development program grows bigger, while the parking inventory grows more vague. And there has been no opportunity for public comment.

## PHASE 1 EXEMPTION: ILLOGICAL

That said, and our opposition to project segmentation firmly intact, we shall nonetheless consider the illogic in the BRA's argument that the Phase 1 Projects of the current plan are only "minor" changes to the 1977/8 plan and, therefore, require no review. First and foremost, the current plan doubles the earlier plan. A revised Master Plan was called for because the GSF limits of the 1977/8 Master Plan had been reached. So the Phase 1 projects totalling 980,000 GSF would be in addition to the 3 million GSF limit of the 1977/8 FEIR. That is a significant increase--not a "minor" change.

Second, the BRA argues that the Phase 1 Research Uses are comparable to the "Light Industrial/Research" Uses under the 1977/78 plan. In fact, "Light Industrial/Research" is an invented hybrid that did not exist in the 1977/8 plan. More to the point, however, is the fact that according to the current Zoning Amendent and Master Plan, Building 1 of the Phase 1 project can be either Reseach or Office Use--a fact the BRA ignores. A comparison of the pertinent Uses and their GSF allowances are as follows:

| USE | 1977/8 | 1990 |
|---|---|---|
| Office | 60,000 | 953,000 |
| Light Industrial | 250,000 | 0 |
| Research | 0 | 1,230,000 |

Not only is Office Use a real possibility, but it is also a greater traffic generator; and for this reason it would be more prudent to utilize Office Use as the base of comparison. Therefore, 60,000 GSF of Office Uses would be compared to 953,000 GSF of Office Uses--for another significant increase.

REQUEST

Mr. Secretary, it is Christmas Eve. There are four working days left in the Administration. Your staff is awaiting further information on the Phase 1 projects such as: a detailed site plan, heights, setbacks, parking in each building, and the GSF of first-floor areas of public accomodation. This is very basic information for a project the BRA claims to have been working on for three years. We respectfully suggest that in this final week, with changes to the plan still ongoing and with no provision for public comment, that a determination be deferred until all information is complete and made public.

Sincerely,

Phoebe Blake

Phoebe Blake
20 Monument Square

for The ad hoc Coalition

enc: 07/26/90 letter to J. McCabe

cc: Senator Kennedy
Senator Kerry
Congressman Kennedy
Governor Dukakis
Governor-Elect Weld
Secretary-Designate Tierney
Senator Doris
Senator-Elect Birmingham
Representative Voke
Represenatative DiMasi
Mayor Flynn
Councillor Travaglini
Secretary Salvucci
Daniel Greenbaum, DEP
J. McDonough, MHC
Richard Dimino, BTD
Stephen Coyle, BRA
R. Fowler, BZC
James Coleman, DOI
J. Burchill, NPS
A. Schwartz, BLC
D. Doheny, NTHP
D. McLaughlin, CNC
A. Hamilton, CLF
J. Ackerman, GLOBE
P. Howe, "
S. Marantz, "
M. Gendron, HERALD
J. Myers, "

The ad hoc Coalition
July 26, 1990

Ms. Janet McCabe, Assistant Secretary
Executive Office of Environmental Affairs
100 Cambridge Street
Boston, MA 02202

RE: Charlestown Navy Yard
Master Plan and Individual Project Advancement.

Dear Ms. McCabe:

The ad hoc Coalition is a Charlestown citizen's group concerned with the impacts of development on the quality of life in Charlestown, most particularly that development slated to occur within the Charlestown Navy Yard. The coalition initially formed in response to what we regarded as an ill-conceived plan by the New England Aquarium Corporation to develop a new facility in Shipyard Park in the Navy Yard. We believe that our group's insights and tenacity contributed to the decision by the Boston Redevelopment Authority (BRA) and the Aquarium to develop on a different site.

The ad hoc coalition respectfully requests a clarification of EOEA policy regarding environmental review of development of the Charlestown Navy Yard. It has been our understanding that no individual project would be advanced through the environmental review process without a new Navy Yard Master Plan being in place.

The BRA, however, is now preparing to move three Navy Yard projects totalling about 1 million square feet through environmental review without the benefit of the Master Plan that would establish a formal context for these projects. BRA contends that it has EOEA approval to develop in accordance with a master plan for the Yard prepared in 1978, but over the past few years, the BRA has been engaged in an effort to win community approval of a new Master Plan, far greater in scale than the 1978 version. The BRA has proposed a new aquarium, medical research space, a hotel, office space, and housing, totalling nearly 5 million square feet, in its master planning and parallel rezoning proposals, the exact mix of uses varying among the various schemes proposed over the years. In response to these proposals, the community has cited concerns over excessive traffic and inadequate parking, and has expressed negative reactions to the massive scale and minimal open space that have been characteristic of each scheme brought forward.

While the most recent BRA master plan proposal (March, 1990) received Charlestown Neighborhood Council approval, it was tabled by the BRA Board on March 15, 1990 to allow for correction of a legal oversight, i.e., the necessary agreement by federal and state co-signers of the Transfer Documents to any changes proposed to the 1978 Master Plan. Negotiations among these agencies are currently underway, but the outcome is, of course, uncertain. Until the required agreement is achieved and action taken by the BRA Board after possible further community review, it is clear that an updated Master Plan does not exist.

The BRA, nevertheless, is now proposing three projects which include the Aquarium, a 300-400 room hotel, and a 350,000 square foot medical research facility-- all at the water's edge. We are at a loss to understand how EOEA can begin to judge the height and density of these buildings, the adequacy of the parking proposal, or the accuracy of traffic forecasts without knowing what else is to come. We further understand that in the case of the hotel and research projects, the BRA is proposing to bypass an ENF filing by submitting a Notice of Project Change, claiming that the level of development has not yet exceeded the 1978 ceiling. Given the BRA's stated intention of developing a far larger Master Plan, it seems quite disingenuous to fall back on the old plan's limits. It appears that this approach would seriously violate long held EOEA precepts condemming segmentation of projects.

When our group met with Undersecretary Gomes, your predecessor Mr. Davis, and other environmental agency officials last year, we were led to believe that if the Aquarium project then under consideration were to proceed, ENFs would be required for a new Navy Yard Master Plan, the Aquarium itself, and the current Aquarium Central Wharf property. As the scale of the new Master Plan and even the projects about to be advanced clearly exceed last year's Aquarium plan in scale and impact, why would similar scrutiny not be called for now? While the coalition has questions about the recent Master Plan proposal (please see our previous correspondence with the BRA: 2/23/90, 3/11/90, and 4/20/90), it has strong fears that piecemeal development will work to the detriment of the community.

It is our hope that you will not consider reviewing the projects mentioned above without a master plan context in hand. The location, size, and character of the Charlestown Navy Yard suggest the most thoughtful and rigorous review. This can only be done when the intended direction of development has been established by a coherent master plan.

We look forward to your sharing of your views on this matter with us

Very truly yours,

Stephen J. McHugh
31 Mead Street
Charlestown, MA 02129

For the ad hoc Coalition

cc: Senator Kennedy
Senator Kerry
Congressman Kennedy
Governor Dukakis
Senator Doris
Representative Voke
Representative DiMasi
Mayor Flynn
Councillor Travaglini
Secretary Salvucci
Secretary DeVillars
Jim Gomes, EOEA
Dennis Duscik, CZM
Daniel Greenbaum, DEP
Valerie Talmadge, MHC
Richard Dimino, BTD
Stephen Coyle, BRA
BRA Board of Directors
Harborpark Advisory Committee
Richard Fowler, BZC
James W. Coleman, NPS
John Burchill, NPS
Alan Schwartz, BLC
Claudia Sauerman, NTHP
David Doherty, NTHP
John de Monchaux, BCDC
Dennis McLaughlin, CNC

## LETTER 17 - THE AD HOC COALITION

**Comment #1**

*Topic:* *Open Space*

**Comment:** Open space assumptions should be explained and tallied to clarify how the 50% of total development as open space is derived.

**Response:** The requirement that at least 50% of the total lot area of all lots included within the Charlestown Navy Yard Subdistrict, excluding the Historic Monument Area, shall be devoted to open space is part of the Charlestown Navy Yard Zoning, Article 42F of the Boston Zoning Code. Article 42F became effective on December 21, 1990, subsequent to public hearing and approval of the BRA and the Boston Zoning Commission.

The Charlestown Navy Yard Zoning Article 42F was also submitted as part of the City's Municipal Harbor Plan, which received EOEA approval on May 22, 1991.

Pursuant to Section 42F-6, open space is defined as land and pier area exclusive of (a) any area occupied by a building or roofed structure, or otherwise enclosed; (b) any parking lot or parking area; (c) any street; (d) any private road or area devoted to motor vehicle use; (e) any salt-water area below the mean high tide line, but not the area of piers over salt-water areas; (f) marina slips or floats or other floating structures; (g) swimming pools; and (h) tennis courts.

The entire area of the National Historical Park is also included within the definition of open space pursuant to Article 42F in recognition of its unique and inherent nature as a park of historic significance. Furthermore, overall planning for the Charlestown Navy Yard is geared toward integrating the National Historical Park with the remainder of the Navy Yard in order to maximize and enhance public access throughout. This is more particularly described in the Double Interpretive Loop concept in Appendix C of this FSEIR.

Summary identification of all open space areas and a zoning calculation that demonstrates compliance with the 50% minimum open space requirement is included in the response to Comment #10 of Letter 1, the DSEIR Certificate.

**Comment #2**

*Topic:* *Traffic Impact*

**Comment:** Traffic impacts are based on extremely optimistic assumptions.

**Response:** In addition to benefiting from the wealth of data and analysis prepared by the CA/T Project, the DSEIR has included a detailed analysis of existing traffic, parking, and transit conditions in the Navy Yard, the Charlestown Unit of the Boston National Historical Park, and the New England Aquarium's current operation at Central Wharf. This analysis indicates that the private van shuttle services and the public bus and water shuttle have been highly successful in diverting large numbers of workers from their cars. Despite the existing large surplus of relatively inexpensive garage parking in the Yard, large numbers of people have chosen to ride buses and vans and to take the water shuttle to and from the Navy Yard. Similar studies, by TAMS Consultants, Inc., of the existing World Trade Center Boston in the South Boston Piers area, further validate the high potential of custom tailored private shuttle services.

Despite current successes, any process which tries to predict people's travel behavior ten to fifteen years into the future is inevitably subject to many unknown events. Thus, the majority of assumptions made in the DSEIR analysis are conservative, in the hope of over-predicting rather than underestimating impacts. The focus of the traffic analysis on peak summer conditions, rather than yearly averages, is but one example of the conservative nature of the analysis. Nevertheless, a key element of the Navy Yard transportation plan is the maintenance of an ongoing monitoring program via the proposed TMA and flexibility with regard to additional measures to control the growth in traffic should unforeseen events occur.

**Comment #3**

***Topic:*** *Traffic Mitigation*

**Comment:** Strongly disagree with the mitigation proposal of expanding Chelsea Street.

**Response:** The mitigation identified is to remove the proposed on-street parking lane along the south side of Chelsea Street and, in its place, add an additional peak period right turn lane on the westbound Chelsea Street approach, as shown in the accompanying figure. While the overall curb-to-curb width of the street is not proposed to be altered, an additional travel lane on the north side of Chelsea Street would be accommodated for right turns at peak hours. The result would be an increase from 16 travel lanes, proposed by CANA, to 17 travel lanes; however, the added lane would not replace additional right-of-way. Except during the afternoon peak period, on-street parking could be permitted in this new lane.

**Comment #4**

***Topic:*** *Traffic Mitigation*

**Comment:** Request that all mitigation measures be made contractual requirements.

**Response:** The BRA is committed to implementing the measures described in Table 57 of the DSEIR. The commitments of the BTD and the MBTA to work with the BRA and to carry out various measures as warranted are mentioned in the BTD comment letter on the DSEIR, among other sources.

The individual projects in the Navy Yard will be reviewed under the Article 31 zoning regulations (see response to Comment #20 of Letter 1, the DSEIR Certificate, whereby a detailed Transportation Access Plan must be submitted for each project as per Section 31-6, and the mitigation measures included in such plan are enforceable via a Cooperation Agreement as per Section 31-14.

**Comment #5**

***Topic:*** *Transit*

**Comment:** Request that specific, detailed and complete transit plans be developed, including clear assignment of responsibilities for implementation of such plans.

**Response:** See responses to Comments #37 and #40 of Letter 1, the DSEIR Certificate.

**Comment #6**

***Topic:*** *Traffic Monitoring*

**Comment:** Request that a system be established for regular monitoring of traffic to be reported to the community and if traffic exceeds projections, the community have recourse to reopen the plans.

**Response:** See responses to Comments #30, #31, and #40 of Letter 1, the DSEIR Certificate, and Comment #4 of Letter 17.

The BTD, the MBTA, the TMA, and the operators of the public parking facilities will be monitoring transportation and parking conditions periodically, as appropriate, in order to evaluate the efficiency and economy of existing services and to plan future improvements.

As individual projects in the Navy Yard proceed, the City of Boston Article 31 Development Review Requirements will govern the review of transportation impacts, among others. Specifically, Section 31-6, Transportation Component, will govern the review of traffic management, parking management, construction management, and monitoring.

**Comment #7**

***Topic:*** *Environmental Review*

**Comment:** Secretary DeVillars' January 2, 1991 letter stated that specific ENF's be required for the Aquarium and Biotech Buildings 2 and 3, which the current SEIR does not fulfill.

**Response:** The proponent will comply with the instructions of the Secretary regarding future MEPA proceedings.

**Comment #8**

***Topic:*** *Environmental Review*

**Comment:** Trust that all requirements for Pier 5 environmental reviews noted in DeVillars' decision remain fully in effect.

**Response:** All requirements for Pier 5 environmental reviews remain fully in effect and will be addressed in the separate EIR required for that project.

## HISTORICAL RESOURCES APPENDIX TO LETTER 17

**Comment #1**

***Topic:*** *Historic Monument Area*

**Comment:** The proposed new courtyards and plazas could introduce elements foreign in design and character to the Shipyard and that street furniture which is appropriate to some parts of the Yard might be repeated slavishly in areas where they would never have existed.

**Response:** The detailed design of proposed open spaces and streetscape elements is subject to continuing design review with historic preservation agencies. The concern expressed is acknowledged.

**Comment #2**

***Topic:*** *Historic Resources*

**Comment:** Efforts to stabilize and use especially significant resources, most notably the Ropewalk and the Chain Forge, should proceed in a timely manner.

**Response:** Such efforts are proceeding as specifically described in the response to Comment #1 of the National Park Service (Letter 2). The stabilization report for the Ropewalk and Chain Forge, which has been approved by the Department of Interior, is included as Appendix B of this FSEIR.

**Comment #3**

***Topic:*** *Design Guidelines*

**Comment:** 1978 guidelines were never sufficiently respectful of the form and character of the Shipyard and the proposed changes not only maintain these errors but add new elements which will be detrimental to the historic significance of the Shipyard.

**Response:** Section 106 of the National Historic Preservation Act of 1966 requires that any federal action be reviewed to insure that the effect of such action on properties listed in the National Register of Historic Places be minimized or mitigated. Regulations implementing Section 106 identify the parties and process for accomplishing such review. The 1978 guidelines were adopted pursuant to the Section 106 process in accord with applicable law and regulation.

In 1991, after a one and one-half year consultation process, consensus has been reached on a revised set of design guidelines that have been signed by the Massachusetts Historical Commission and the President's Advisory

available primarily for suburban examples, where walk and transit trip rates are low or non-existent. Thus, while the absolute ITE vehicle trip generation numbers are not comparable to the Navy Yard, the relationship between ITE office vehicle trip generation and ITE research space vehicle trip generation is a valid point of reference. Based on seven studies of research and development centers (ITE Code #760) and 147 studies of general office buildings (ITE Code #710), ITE reports that research and development space generates approximately 46 percent of the number of daily vehicle trips as reported for small office buildings.

The 1989 calibration produces a higher transit share for research space compared to office space, primarily as a result of the MGH facility in Building #149 and its successful dedicated shuttle bus services between the Navy Yard and the MGH Campus downtown. While shuttles also serve the MWRA and BRA offices, these do not carry the high ridership of the MGH shuttle. In addition, the other office uses in the Navy Yard, which are typically single-site small businesses, are not served currently by shuttle buses.

As discussed in the DSEIR, the 1989 calibrated transit mode shares, walk percentages, and average vehicle occupancies were modified to conform more closely to those predicted by the CA/T Project for the design year analyses for 1998 and 2005. The justification for each modification is discussed in detail in the DSEIR and summarized as follows:

- Transit mode share is forecast to increase in general by the CA/T Project in the greater downtown area as a result of planned improvements in MBTA service, increased parking costs, and a relative reduction in the supply of available parking compared to demand. In the Navy Yard, transit use also should increase as a result of the improved bus shuttle and water shuttle services connecting to the MBTA services.

- Navy Yard walk percentages are forecast to increase to equal those currently reported for the balance of Charlestown, as the Navy Yard builds out. With the increase in the mix of Navy Yard uses, a relative increase in walk trips will occur, since more work and shopping opportunities will be satisfied within the Yard and not require an external vehicle trip.

- Average vehicle occupancies will rise in the Navy Yard to equal those forecast by the CA/T Project as a result of the increased density, the reduction in the relative supply of low cost parking, and the efforts of the Transportation Management Association (TMA) in promoting carpooling.

Council on Historic Preservation. The Boston Landmarks Commission (Letter 4) indicates that such revised guidelines "best protect the historic resources within the Historic Monument Area and should be included in the FSEIR." The revised guidelines have been so included as Appendix A of this FSEIR.

**Comment #4**

*Topic:* *Pier 5*

**Comment:** Building housing on Pier 5 is a mistake from 1978 guidelines which will be perpetuated by the current plan.

**Response:** This FSEIR requests no further MEPA determination with respect to Pier 5 beyond what was provided in the EOEA Secretary's Certificate dated August 12, 1987.

**Comment #5**

*Topic:* *Parcel 4*

**Comment:** Guidelines for Parcel 4 may have improved from the 1978 guidelines, but the building which is allowed is still too elegant and residential in character for its site.

**Response:** The potential elegant nature and residential character of a specific building design which could be accomplished within the improved guidelines is a concern that has also been expressed by the Massachusetts Historical Commission and other historic preservation officials. As detailed building designs are developed, the BRA will review these designs with the Massachusetts Historical Commission to insure that this concern is addressed.

**Comment #6**

*Topic:* *Parcels 6 and 7*

**Comment:** Proposed buildings are excessively massive and will dwarf historic structures. Buildings #42, 105, 149, and 199 will be overwhelmed by the sheer bulk of the new structures.

**Response:** The impact of the massing of new construction on historic structures has received extensive study and discussion over the course of the one and one-half year long review of the proposed Charlestown Navy Yard Master Plan with historic preservation officials. Analysis of the visibility of new structures on Parcels 6 and 7 from the vantage point of pedestrians throughout the remainder of the Navy Yard was accomplished by

positioning sticks representing lines of sight on a 1 inch = 40 feet scale model of the Charlestown Navy Yard.

The line of sight analysis demonstrated that the 155-foot tall Building B on Parcel 7 will not be visible from most of the Historic Monument Area since it is located behind the 140-foot tall Building A. Likewise, Building C on Parcel 6 proposed at a height of 110 feet (which is unchanged from the 1978 EIR and design guidelines) shields the visibility of Building B from the Yard's End open space at Pier 11. Therefore, for all intents and purposes, the height of new construction at Yard's End will appear to be 140 feet and 110 feet from the majority of pedestrian areas in the remainder of the Charlestown Navy Yard.

The relatively simple, straightforward massing of existing industrial loft structures such as Buildings #149 and #199 provides the design precedent for the new biomedical research buildings at Yard's End. The following chart summarizes overall facade dimensions of existing and proposed structures to gauge comparative visual impact of building mass.

| | Length (feet) | Width (feet) | Height (feet) | Maximum Visible Facade |
|---|---|---|---|---|
| Bldg. 149 | 450 | 190 | 96/118 | 70,000 s.f. |
| Bldg. 199 | 400 | 170 | 110 | 62,700 s.f. |
| Bldg. A | 280 | 120 | 140 | 56,000 s.f. |
| Bldg. C | 360 | 120 | 110 | 52,800 s.f. |

As is evident, less facade area would be visible for the new construction than is currently visible for existing buildings. A similar comparison to Building #42 is less meaningful due to the 1/4 mile separation between Building #42 and Yard's End. However, it is interesting to note that the maximum visible facade area of Building A or Building C exceeds that of Building #42 by only 11-17%.

A comparison with Building #105 is also influenced by the unique, pitched roof massing of this structure which clearly differentiates it from existing industrial loft structures and the new buildings at Parcel 6 and 7.

This unique massing contributes a much greater degree of visual prominence to Building #105 than if it were a simpler massing. In addition Building #105 is separated from Yard's End by nearly 600 feet. View line analysis on the 1 inch = 40 feet model demonstrated that the new Building A would not be visible over the roofline of Building #105 from most

vantage points along First Avenue and Ninth Street in the vicinity of Building #105. On the other hand, Building C on Parcel 6 would be visible down First Avenue. However, as previously stated, the proposed height of Building C is unchanged from the 110 feet approved in the 1978 EIR and design guidelines.

## TRANSPORTATION APPENDIX TO LETTER 17

**Comment #1:**

***Topic:*** *Traffic Counts*

**Comment:** The baseline model (1989) is based on too little data.

**Response:** The trip generation rates were calibrated against traffic counts conducted over two full weekdays and a Saturday in 1989. An analysis of these counts indicated a relatively stable condition, without any unusual variation among the days observed. In addition, the parking demand rates derived from these trip generation rates gave a very close fit to the data gathered on parking utilization in early 1990. Thus, the findings of an analysis of two data points give further validation to the trip generation rates. The procedures followed in the Charlestown Navy Yard analysis are typical of those used by other regional studies to derive trip rates, transit mode splits, and average vehicle occupancies.

**Comment #2:**

***Topic:*** *Trip Rates*

**Comment:** Trip rates for the research use are greatly distorted. The 1989 baseline model is substantially departed from in predicting future traffic. Peak hour trips are underestimated. Future cultural/recreational trips are underestimated.

**Response:** Trip generation by land uses such as office space and research and development space are a function of employment levels. That is, the majority of trips generated by these uses are by employees commuting to and from work. Thus, employment density is the key factor driving the number of trips per 1,000 square feet of space. In the case of the biomedical research space, the studies cited in the DSEIR indicate that this use employs approximately 2.2 workers per 1,000 square feet, compared to approximately 4.0 workers per square feet for office uses contained in small rehabilitated buildings and approximately 5.0 workers per 1,000 square feet contained in large new office buildings. Thus, it is reasonable to assume that the person trip generation rate for biomedical research space is 55 percent of that for rehabilitated office space and 44 percent of that for new office space.

Another point of reference is the data reported by the Institute of Transportation Engineers (ITE) for these same uses.[1] ITE data are

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[1] *Trip Generation*, 5th Edition, Institute of Transportation Engineers, Washington, DC, 1991.

**Comment #3:**

***Topic:*** *Vehicle Occupancy Rates*

**Comment:** The assumptions for vehicle occupancy have been raised.

**Response:** As discussed in the response to the previous comment, average vehicle occupancies observed in the Navy Yard in 1989 are forecast to rise to equal those forecast by the CA/T Project as a result of the increased density, the reduction in the relative supply of low cost parking, and the efforts of the Transportation Management Association (TMA) in promoting carpooling.

**Comment #4:**

***Topic:*** *Mass Transit*

**Comment:** The mass transit component of the plan is unrealistic.

**Response:** The proposed shuttle bus and water shuttle system is forecast to increase the percentage of work trips by transit between 1989 and 2005 as follows:

- Navy Yard office workers from 20 percent to 30 percent;
- Navy Yard research workers from 45 percent to 52 percent; and
- Navy Yard residents from 20 percent to 40 percent.

In light of the proposed transit improvements and the experience of the World Trade Center Boston with high quality, dedicated transit services, these increases are not overly optimistic.

**Comment #5:**

***Topic:*** *Charlestown Streets*

**Comment:** The plan downplays traffic impacts on local streets. The plan makes Chelsea Street an arterial highway.

**Response:** See response to Comment #27 of Letter 1, the DSEIR Certificate.

**Comment #6:**

***Topic:*** *Parking Plan*

**Comment:** Parking is inflexible.

**Response:** The sharing of large parking structures, such as that in Building #199, by multiple users is a common practice. In fact, it occurs today in the Navy Yard. Numerous other examples of the sharing of parking spaces among multiple users, such as the Prudential Center Garage, the Government

Center Garage, and the new underground parking structure at Post Office Square, can be cited throughout Boston. The concept of public parking facilities in which a space may be used part of the time by a commuter, part of the time by a visitor to the Navy Yard, and again at night by a Yard resident is very realistic and economically necessary. It is impractical to build parking dedicated for each use and then have these spaces sit empty during most of the day or evening.

The use of simple changeable message signs along Chelsea Street near the Gate #5 and Gate #6 entrances will direct visitors to the Little Mystic lots during those summer weekdays when the Yard's End garages reach capacity. Such a system can be effective in preventing visitors from circulating in and out of the Yard's End area when the garages are full.

## OPEN SPACE APPENDIX TO LETTER 17

**Comment #1**

***Topic:*** *Second Avenue Pedestrian Mall*

**Comment:** The Second Avenue pedestrian mall blocks the "Walk-to-the-Sea" and gives no promise or glimpse of a waterfront.

**Response:** See the response to Comment #2 of Letter 3.

**Comment #2**

***Topic:*** *Open Space*

**Comment:** The development at Yard's End becomes a net loss of open space and visual and pedestrian accessibility to the water's edge.

**Response:** Pedestrian accessibility to and along the waterfront is increased over that provided by the previously approved plan. The Aquarium has replaced a luxury housing development in the plan, thereby creating greater public attraction and access to the waterfront and waterfront uses. Similarly, Harborwalk, especially along the Little Mystic Channel, has increased public access along the harbor's edge where no access previously was planned.

Furthermore, the new zoning for the Charlestown Navy Yard now requires that at least 50% of the total lot area of all lots included within the Yard, excluding the Historic Monument Area, be reserved for open space while in 1978 there were no open space requirements.

**Comment #3**

***Topic:*** *Open Space*

**Comment:** Need to know each piece that is included in "Total Development Area" (totals of New Development Area, Historic Monument Area, etc.), how much of each category is deducted from the number (water, Historic Monument Area, streets, etc.), and the square footage of each park (is water included or already deducted?), each plaza, each courtyard, each pier, Flirtation Walk, each street, or any other part of the open space plan that, together with the numbers for pedestrian ways and harborwalk, add up to the total open space in the SEIR.

**Response:** Detailed summary of the existing and proposed open space areas is included in the response to Comment #10 of the DSEIR Certificate (Letter 1), from which it can be seen that the total open space planned for the BRA's portion of the Charlestown Navy Yard is approximately

1,437,000 square feet, or 33 acres, as specified in the DSEIR. Water areas, except for those with piers, as well as street areas are not included in these calculations.

## CHAPTER 91 APPENDIX TO LETTER 17

**Comment #1**

***Topic:*** *50% open space requirement.*

**Comment:** Why was the BRA allowed to meet their open space requirement through a Navy Yard-wide calculation of open space and not a parcel by parcel calculation?

**Response:** The method of calculation for the 50% open space requirement was approved by the Secretary as part of the Boston Municipal Harbor Plan on May 22, 1991. This comment appears to request a reconsideration of the Secretary's decision. A petition for reconsideration was submitted within the regulatory deadline and, in part, raised the issue of the open space calculation. That petition was denied by the Secretary on July 2, 1991.

**Comment #2**

***Topic:*** *Facilities of Public Accommodation*

**Comment:** If the Secretary intends to compromise her decision that ground floors of buildings containing private, non-water dependent uses be devoted to facilities for public accommodation, then she should provide something additional to the public such as more open space, or lower building heights.

**Response:** As noted in response to the immediately preceding Comment #1, this comment appears to seek a reconsideration of the Secretary's decision on the Boston Municipal Harbor Plan. The regulatory period for a petition for such reconsideration expired on June 11, 1991. The MEPA process is not the proper forum within which to revisit these issues.

**Comment #3**

***Topic:*** *Setbacks on Waterfront Lots*

**Comment:** The Secretary states that the width of the setback zone is proportional to the lot's depth or pier dimensions (she uses 25% of the lot's depth to determine size of zone). Why has she approved the BRA's proposed setbacks of 20 ft.-35 ft. even though the individual lots in the Navy Yard are deeper than 150 feet and would require larger setbacks?

**Response:** See response to Comment #2 of this Chapter 91 Appendix to Letter 17.

**Comment #4**

***Topic:*** *Heights*

**Comment:** Chapter 91 regulations limit heights of non-water dependent uses, within 100 feet of the high tide mark to 55 feet. The average height for new facilities in the Navy Yard, approved by the Secretary, is almost 110 feet.

**Response:** See response to Comment #2 of this Chapter 91 Appendix to Letter 17.

LETTER 18

# SHIPWAYS CONDOMINIUM ASSOCIATION
Board of Managers
Shipways Place
Charlestown, MA. 02129

Tahey, Pres.
35
leen Schatz, V. Pres.
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n Farrell, Treas.
C-6

Pat Brennan, Clerk
Unit 6
Frank Deltergo
Unit 17

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MEPA

July 24, 1991

Susan Tierney
Secretary, Executive Office
of Environmental Affairs
100 Cambridge Street
Boston, Ma. 02108

Att: William Gage, MEPA Unit

Dear Secretary Tierney:

Re: EOEA 02382 - Charlestown Naval Shipyard

We represent the owners of the 48 residential units and 9 commercial units that comprise the Shipways Condominium Association. We urge you to reject outright the so-called "Master Plan" as being woefully out of scale with the capacity of the Navy Yard and with the Plan for the Yard approved in 1978. At the very least, your opinion must contain sufficient controls that the promised investment in open space, historic restoration and public access to the waterfront does no fall victim to developer avarice as happened with Building 197, and nearly happened in the siting of the proposed Aquarium in Shipyard Park.

1 The DSEIR, as we see it, is nothing more than the culmination of a series of political and legal maneuverings by the BRA to expand the 3.4 million square feet buildout approved in 1978 to the 5.0 million square feet now proposed. The plan presented in the DSEIR is not the result of a cooperative community planning process as the BRA would have you believe. Apart from the re-siting of the Aquarium, there is no evidence that the 200 plus community meetings of which the BRA continues to boast swayed the BRA toward the community will. Rather, the twin carrot sticks of jobs and housing lulled people into acquiescence to the BRA's apparent goal of maximizing density by circumventing process. Now, housing has disappeared from the Yard's End build out plan. The BRA has jilted the girl-next-door, attractive, affordable housing, to chase after the new glamour queen of developers, biomedical research.

The 1988 community generated Master Plan, unanimously endorsed by the Neighborhood Council has been trashed. The early accomplishments in the Navy Yard are commendable; restoration of the buildings in the 30 series, Shipyard Park, Buildings 42 and 103, and even Building 149 are fine examples of adaptive reuse which respected the scale and context of the Navy Yard and were recognized as such. The Plan began to go awry, it seems, with the development of Building 197. Apparently, the developer, with the enthusiastic collaboration of the BRA, who should have known better, tried to emulate the success of Rowes Wharf, and compete with the Esplanade. Flagship, it should be painfully clear, is the wrong project, in the wrong place, at the wrong time as will a 55 foot development on Pier 5. Should the BRA be allowed to repeat this travesty at Yard's End? We, who have invested heavily in the promise of the 1978 Master Plan, look to watchdog agencies such as yours, to protect the people and the environment from bad development.

We continue to support the Aquarium on Parcel 5, and the completion of the buildout of Yard's End. However, controls must be in place to assure the appropriate buildout. These controls are not present in the BRA proposed DSEIR. We therefore request the following conditions be imposed:

2 1. Gate 6 must be committed as a condition of Yard End development

3 2. Construction of the Aquarium must be linked to the restoration of Building 105.

4 3. Construction of Phase 1 on Parcel 7 be contingent on the restoration of Building 75, and restoration of Building P.

5 4. Construction of the hotel on Parcel 4 be contingent on restoration of Building 58 (ropewalk).

6 5. Approval of Phase II of the Biomedical Research Center be withheld, and reconsidered after the impacts on the environment of the Phase I development are better understood.

7 6. Commitment that Building 104 be redeveloped into affordable elderly housing with retention of the building's shape and facade to complement the restored Building 105.

8 7. Removal of Pier 5 from consideration with this DSEIR, but be considered separately on its own merits. Pier 5 should be dedicated to open space for public benefit, or at least for water related uses.

The Navy Yard development can get back on track and become a wonderful environment for those of us who live here, and for all the community members who use it, or it can degenerate into a hodge-podge of failed projects and derelict properties. You have the power to direct that development; we trust you will use it for the protection and enhancement of the environment.

Sincerely yours,

Tom Fahey
President
Shipways Place Board of Managers

cc: List attached

cc:

National Park Service
Massachusetts Historical Commission
Coastal Zone Management
Executive Office of Communities and Development
Mayor's Office
BRA
Boston Landmarks Commission
Charlestown Neighborhood Council
Mayor's Office of Neighborhood Services
Congressman Joseph P. Kennedy
Senator John Kerry
Senator Ted Kennedy
Senator Thomas Birmingham
Representative Richard Voke
Representative Salvatore DiMasi
Councillor Robert Travaglini
ad hoc Coalition
Shipways Board of Managers

## LETTER 18 - SHIPWAYS CONDOMINIUM ASSOCIATION

**Comment #1**

*Topic:* *Public Participation*

**Comment:** DSEIR plan is not the result of a cooperative community planning process and does not provide promised affordable housing.

**Response:** Additional perspective in this regard is provided by the Charlestown Neighborhood Council letter (Letter 16). The Neighborhood Council consists of 21 members, two-thirds of whom are popularly elected by neighborhood residents and one-third of whom are appointed from Charlestown-based non-profit organizations by vote of the popularly elected members.

The Neighborhood Council has written that it is "proud of the intense public process that has been sponsored with over 150 public meetings" leading to a vote of 20-1 in favor of the Charlestown Navy Yard Master Plan. In addition, the plan proposes 369 affordable dwelling units out of a total of 1,242 units -- well in excess of the 25% affordable housing goal established for the Navy Yard in 1984. This overwhelming public support for the Master Plan can be seen in the 525 letters sent from community residents and organizations to the Secretary in support of the Navy Yard redevelopment. Names and addresses of these community members can be found in Appendix H of this document. Copies of their letters are available on request to the BRA.

**Comment #2**

*Topic:* *Gate 6*

**Comment:** Gate 6 must be committed as a condition of Yard End development.

**Response:** The BRA is committed to the implementation of Gate 6. See Table 57 in the DSEIR.

**Comment #3**

*Topic:* *Aquarium/Building 105*

**Comment:** Construction of the Aquarium must be linked to the restoration of Building 105.

**Response:** As more specifically indicated in the response to Comment #1 of Letter 2, the BRA is proceeding with work on Building 105 in cooperation with historic preservation agencies.

**Comment #4**

***Topic:*** *Phase 1 on Parcel 7/Buildings 75 and P*

**Comment:** Construction of Phase 1 on Parcel 7 must be contingent on the restoration of Building 75 and restoration of Building P.

**Response:** The BRA is proceeding with the stabilization work on Building 75 and Building P in accordance with National Park Service requirements. A Request for Proposals for Building P has already been released, and a redeveloper was designated by the BRA Board of Directors on August 21, 1991.

**Comment #5**

***Topic:*** *Hotel/Building 58*

**Comment:** Construction of the hotel on Parcel 4 must be contingent on restoration of Building 58 (Ropewalk).

**Response:** Progress on achieving stabilization of the Ropewalk is specifically described in the response to Comment #1 of Letter 2.

**Comment #6**

***Topic:*** *Phase II, Biomedical Research Center*

**Comment:** Approval of Phase II of the Biomedical Research Center should be withheld, and reconsidered after the impacts on the environment of the Phase I development are better understood.

**Response:** The requisite impact information is provided both in the DSEIR and in this FSEIR.

**Comment #7**

***Topic:*** *Building 104*

**Comment:** There must be a commitment that Building 104 be redeveloped into affordable elderly housing with retention of the building's shape and facade to complement the restored Building 105.

**Response:** The Charlestown Navy Yard Master Plan proposes that Building #104 be redeveloped into affordable elderly housing. Design of this project envisions retaining the structure's shape and facade to complement Building #105.

**Comment #8**

*Topic:* *Pier 5*

**Comment:** Pier 5 should be removed from consideration with this DSEIR, but be considered separately on its own merits. Pier 5 should be dedicated to open space for public benefit, or at least for water related uses.

**Response:** This FSEIR requests no further MEPA determination with respect to Pier 5 beyond what was provided in the EOEA Secretary's Certificate dated August 12, 1987. Accordingly, this comment is outside the scope of review of this FSEIR.

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